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GIANT CALAMARY

Caught by the Crew of the French Steamer Alecton, Nov. 1861.

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MONSTERS OF THE SEA.

SURPRISED BY AN OCTOPUS.

Page 106.

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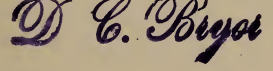
MONSTERS OF THE SEA

Legendary and Authentic.

By

JOHN GIBSON,

Author of "Chips from the Earth's Crust," "Science Gleanings in Many Fields," etc.



WITH SIXTEEN ILLUSTRATIONS.

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Preface.

In ancient times little was known of the sea and its inhabitants. A wide field was thus presented for the play of the imagination, and so the waste of waters came to be peopled with a host of fanciful monsters. The better knowledge of modern times, while it has swept the most of this away, and reduced the remainder to truthful proportions, has at the same time made known the existence in the sea of animals much more truly wonderful than any the ancients ever imagined.

The belief in a huge sea-serpent is of great antiquity; but modern science has shown that tropical oceans abound in sea-serpents, small indeed for the most part, but of wondrous structure and armed with the most deadly poison. In giving an account in the following pages of those genuine sea-monsters, as well as of the much larger but non-poisonous snakes that frequent the rivers of Brazil, notice is also taken of the appearances that have led to the supposition that in the ocean at the present day a Great Sea-Serpent exists. It is strange that a creature so large as this is alleged to be should come at intervals under man's observation and yet for ever elude his grasp. Its capture has yet to

be made, and until this is effected the existence of such a creature may well be doubted. In the meantime, considerable interest attaches to the literature which has gathered round the mythical monster, a summary of which is given in the following pages.

The octopus was known to the dwellers by the Mediterranean, and it seems to have been the foundation on which more than one of their legendary sea-monsters were formed. Nor is this surprising, in view of the curious forms and no less curious habits of the octopus and its allies, the squid and the cuttle-fish. Their sac-like bodies, encircled at the upper end with eight or ten arms covered with suckers, their mode of progression by means of a stream of water ejected from their bodies, and their ink-bag—that most curious organ of defence—were well calculated to strike the imagination. It is easy thus to see how the Lernæan Hydra grew out of the Mediterranean octopus.

Our knowledge of these creatures has greatly increased of late years. The octopus is now known to attain formidable dimensions, while cuttle-fishes have been captured off the coast of Newfoundland measuring about sixty feet in length—a discovery which has rendered it no longer difficult to believe that the legendary kraken of the Norwegian coast was simply an exaggerated cuttle-fish. The habits, structure, and uses of these interesting molluscs are described in the following pages in popular language.

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MONSTERS OF THE SEA.

CHAPTER I.

SEA-SNAKES.

ALTHOUGH snakes are for the most part land animals, there are few of them that cannot take if necessary to the water. Thus the cobra has been observed many miles from land crossing an arm of the sea. There are other snakes that may be described as amphibious, which, like the great anaconda of South America, inhabit the banks of streams, and pass in and out of the water like otters. These, during heavy floods in such rivers as the Amazon and the Plate, are often carried out to sea, where they are apt to be mistaken for true sea-serpents.

A year or two ago the captain of the steam-ship *Mexico* stated that he had passed through a tangled

mass of snakes at the entrance to the Gulf of Mexico. The ship was said to have been more than an hour in passing them. "They were of all sizes, from the ordinary green water-snake of two feet long to monsters of fourteen or fifteen feet in length." These were most probably land-snakes that had been carried out to sea by river floods; and amphibious forms thirty feet in length, like the anaconda, might thus be found in the waters of the ocean.

This is probably the explanation of an incident noted in the log-book of a ship which at the time was in the neighbourhood of the Azores. The ship, according to the log, was becalmed, when a very large snake passed. It appeared to be about sixteen or eighteen feet in length, and three or four feet in circumference; the back of a lightish colour, and the belly yellow. This specimen had probably been carried out to sea by one of the great rivers of South America, and thence conveyed by the Gulf Stream to the spot where it was seen.

There are, however, a large number of true water-snakes—snakes which are born, live, and die in the water. Some of these are entirely fresh-water forms, others as exclusively marine. These two kinds differ very much from each other. In fresh-water snakes the tail is round and tapering, as in the land forms.

The sea-snakes, on the contrary, have the end of their tail flattened out like a paddle—an arrangement that assists them greatly in making swift way through the water. Further, fresh-water snakes are all harmless, in no case possessing poison-fangs; while the sea-snakes are the most venomous of all the poisonous serpents.

The sea-snakes are inhabitants of the tropical seas of the eastern hemisphere, being specially abundant in the Indian Ocean. There are different kinds of them known, most of them adorned with bright colours and elegant patterns. They differ considerably in size, the largest, so far as is known, not exceeding fourteen feet in length, while most of the species are not bigger than the common viper.

They are interesting and beautiful objects in the water, their movements being thus described by a recent writer:—"Swimming and diving with equal facility, flashing into sight and disappearing again in twos or scores, or in larger shoals, pursuing fish, many of them of bright colouring, they offer constant amusement to the beholder. Sometimes, when the sailors are throwing their nets, they disappear beneath the waves, and are no longer seen for half an hour or more; when presently, far away from the spot where they vanished so suddenly, up they come to

the surface again, to sport once more, or to take in a fresh supply of air."

Though timid creatures, seeking ever to avoid man, sea-serpents are greatly dreaded by fishermen in the seas in which they occur. And not without cause; for they often get entangled in the nets, and so are conveyed with the draught of fishes into the boat, where, unnoticed, they may be handled or trampled upon, and thus tempted to use their fangs. These fangs are supplied with what is probably the deadliest of all snake poisons, for they seem to be the only serpents whose bite is fatal to other venomous snakes.

"One of my earliest recollections in Ceylon," says a recent traveller, "is that of a poor young officer of the surveying schooner *Wolf*. He handled a sea-snake, which had been taken up by the dredging-net, and was bitten. Although entreated by the surgeon to submit to excision of the portion of his hand on which the bite had been inflicted, he refused, sharing as he did in the then popular belief of the harmlessness of sea-serpents. In a few hours, however, he was dead."

So minute is the wound made by these snakes that it is often nearly painless, and therefore apt to be overlooked. Sir Joseph Fayrer gives several instances of this. A captain, while bathing in a tidal

river, felt what he supposed was the pinch of a crab on his foot, but took no notice of it; and after dressing, he called on some friends, being to all appearance in his usual health. In about two hours he felt strange symptoms of suffocation, enlargement of the tongue, and rigidity of the muscles. Next morning decided symptoms of the bite of a sea-snake showed themselves; and when the foot which he supposed had been bitten by a crab was examined, marks of fangs no bigger than mosquito bites were detected near the ankle. The best remedies were immediately applied, but death ensued on the third day after the bite. In another case, a man bitten on the finger by a sea-snake, but who thought so lightly of it that he took no means to arrest the poison, died in four hours.

The eyes of sea-serpents are so exclusively adapted for seeing through the watery medium in which they live, that, when taken out of the water, or cast ashore, they are practically blind. Not being able to see, they cannot take aim, but bite wildly at any object that may come in their way. They have thus been known, in rage or terror at finding themselves out of their element, to bury their fangs in their own body. Nevertheless, there is at least one kind of sea-serpent which occasionally leaves the sea to wander over the salt marshes; and stories are told of sea-snakes climb-

ing by chain or rope into ships. Frank Buckland tells of one which climbed up the anchor-chain of a man-of-war moored at the mouth of the Ganges. The midshipman of the watch saw something moving along the chain, and without thinking went to pick it up, when it turned upon and bit him. The unfortunate lad did not live many hours after the accident.

CHAPTER II.

PONTOPPIDAN'S SEA-SERPENT.

THAT sea-serpents thus exist in abundance is beyond all doubt. Besides these, however, there are great sea-serpents in the ocean which as much exceed in size those small forms—the biggest of which is not more than twelve or fourteen feet in length—as the giant cuttle-fishes do the ordinary squids. The belief that such a monster exists in the ocean is both ancient and widespread. There are numerous accounts of its having been seen by mariners of this and other countries; and such incidents are becoming more common now that the ocean has become the highway of the nations. There is only one thing lacking to put the existence of the great sea-serpent beyond all doubt, and that is its capture. Until this is done, we must be content to judge of the existence and nature of the sea-serpent from the narratives of those who are said to have seen it.

Strange to say, traditions of the sea-serpent occur

chiefly among the Scandinavians — the same who preserved the story of the legendary kraken. That they believed implicitly in its existence more than three centuries ago is proved by the words of Olaus Magnus, the Archbishop of Upsala, written in 1555.

He states that navigators of all sorts in Norwegian waters are agreed in this strange story that a serpent of huge size—namely, two hundred feet long and twenty feet thick—occurs, and that it is to be found living in caves and rocks of the sea-coast about Bergen. This monster, he declares, leaves his aquatic lair in clear summer nights, and, going ashore, devours calves and lambs and hogs. At other times he goes seaward, and feeds on lobsters, octopuses, and crabs. The archbishop has no difficulty in describing the creature. "He hath commonly," he says, "hair hanging from his neck a cubit long, sharp scales, and is black, and he hath flaming, shining eyes." This snake, he adds, disquiets the shepherds; and no wonder, seeing "he puts up his head on high like a pillar, and catcheth away men, and devours them." To bring this creature and its works more vividly before his readers, Olaus Magnus supplies an illustration, in which the sea-serpent is seen seizing a sailor from the deck of a ship, while his companions are all

LEGENDARY SEA-SERPENT.

taking themselves off to places of safety, leaving their mate to his fate.

Two centuries later the Scandinavians were more intelligent, and consequently less credulous, yet still they believed most firmly in the great sea-serpent.

Pontoppidan, the famous old Bishop of Bergen, sifted the stories about the sea-serpent, as he did those of the kraken, and in both cases from being a sceptic he became a believer. Of the sea-serpent he says:—"I have questioned its existence myself, till that suspicion was removed by full and sufficient evidence from credible and experienced fishermen and sailors in Norway, of which there are hundreds who can testify that they have annually seen it. All these persons agree very well in the general description; and others who acknowledge that they only know it by report, or by what their neighbours have told them, still relate the same particulars. In all my inquiry about these affairs I have hardly spoken with any intelligent person born in the manor of Nordland who was not able to give a pertinent answer and strong assurances of the existence of this fish. And some of our north traders that come here every year with their merchandise think it a very strange question when they are seriously asked whether there be any such creature; they

think it as ridiculous as if the question was put to them whether there be such fish as eel or cod."

A fair specimen of the kind of evidence which satisfied the Bishop of Bergen is the account given him by Captain de Ferry of his adventure with the sea-serpent:—

"In the latter end of August, in the year 1746, as I was on a voyage, on my return from Drontheim, on a very calm and hot day, having a mind to put in at Molde, it happened that when we were arrived with my vessel within six English miles of the aforesaid Molde, being at a place called Jule-Naess, as I was reading in a book, I heard a kind of a murmuring voice from amongst the men at the oars, who were eight in number, and observed that the man at the helm kept off from the land. Upon this I inquired what was the matter, and was informed that there was a great sea-snake before us. I then ordered the man at the helm to keep to the land again, and to come up with this creature, of which I had heard so many stories. Though the fellows were under some apprehension, they were obliged to obey my orders. In the meantime, the sea-snake passed by us, and we were obliged to tack the vessel about in order to get nearer to it. As the snake swam faster than we could row, I took my gun, that was ready

charged, and fired at it; on this he immediately plunged into the water. We rowed to the place where it sank down (which in the calm might be easily observed), and lay upon our oars, thinking it would come up again to the surface; however, it did not. Where the snake plunged down the water appeared thick and red; perhaps some of the shot might wound it, the distance being very little. The head of this snake, which it held more than two feet above the surface of the water, resembled that of a horse. It was of a grayish colour, and the mouth was quite black and very large. It had black eyes, and a long white mane that hung down from the neck to the surface of the water. Besides the head and neck, we saw seven or eight folds, or coils, of this snake, which were very thick; and as far as we could guess, there was about a fathom distance between each fold."

Pontoppidan gives a figure of the sea-serpent, in which the head is seen above water, followed at intervals by the eight coils, which, as they were supposed to have a fathom between them, look like so many detached humps. If the creature seen by De Ferry was in reality a serpent, then, no doubt, those elevations were connected together by corresponding depressions beneath the water. But it is

now thought probable that the ancient mariner was deceived, as many modern ones have been, by the striking resemblance between a company of porpoises moving through the water in single file — a way they have when travelling—and the convolutions of a gigantic snake-like animal. A sea-serpent very closely resembling that described by Pontoppidan was seen in Loch Hourn, on the west of Scotland, several times within a few days in the year 1872. It had seven hunches or protuberances in a line, preceded by a head and neck. Like Pontoppidan's, it was most likely a company of travelling porpoises. Porpoises raise their back above the surface in order to breathe; and when thus breathing and moving in single file they have been described by "naturalists and seamen as resembling a long string of casks or buoys, often extending for eighty or a hundred yards." The body of a serpent, as it glides along the ground or through the water, forms convolutions or folds; but these are from side to side, and not up and down. Consequently they would not show as protuberances above the water.

Several years before this, Hans Egede, the apostle of Greenland, encountered a sea-monster, of which he gives an account in his "Journal of the Missions to Greenland."

THE SEA-SERPENT.
(Fac-simile of an Engraving of Pontoppidan's.)

"It raised itself," he says, "so high up out of the water that its head reached above our main-top." He describes it as having a long, sharp snout and broad flippers, and as spouting water like a whale. Its body seemed covered with scales, its skin uneven and wrinkled, and its lower part formed like a snake. The creature after some time plunged back into the water, and then turned its tail up above the surface a whole ship's length from the head.

Hans Egede's readers are greatly assisted in forming an idea of what this creature was like by a drawing of the animal supplied by a brother missionary. It has been ingeniously suggested by Mr. Henry Lee that Egede's sea-monster was no other than one of those giant cuttle-fishes whose presence in those northern seas gave rise to the belief in the kraken. What Egede believed to be the creature's head was, he maintains, the tail part of the cuttle, which goes in advance as the creature swims, and which it raises considerably out of the water when propelling itself upward to the surface. The so-called tail of the monster he believes to have been one of the arms of the cuttle-fish.

CHAPTER III.

SCOTTISH AND AMERICAN SEA-SERPENTS.

No more is heard of the sea-serpent till the beginning of the present century, when the monster, or what was taken for it, was found stranded on one of the Orkney Islands. It was measured on the spot, and was said to be fifty-six feet in length and twelve in circumference. It had a small head, a long neck, and a bristly mane, extending all along the back, and was furnished with three pairs of paddle-like limbs. A sketch of the animal was taken as it lay on the shore, and it certainly bore little or no resemblance to any previously known animal.

Fortunately, however, as the carcass of this sea-serpent broke up, parts of the backbone were preserved and sent to the museums in London and Edinburgh, where they were examined by Owen and Home, who at once pronounced the fragments to be parts of the backbone of the great basking shark. This is a British species, and is the largest of all the sharks,

being known to attain a length of thirty-six feet. Although the largest, it is the least ferocious of the sharks, being sluggish in its habits, and frequently lying motionless sunning itself on the surface of the water. When thus engaged, it will sometimes allow a boat to touch it before moving. The specimen stranded on the Orkneys may have been exceptionally large, but that it was simply a basking shark and no sea-serpent is beyond all doubt. Had it not been for the preservation of these few vertebræ, there is little doubt that this would have been quoted as one of the best authenticated cases of the occurrence of the sea-serpent.

In the following year the Wernerian Society of Natural History, which had published in their Transactions the description and figure of the above-mentioned monster, received a communication from Mr. Maclean, the minister of Eigg, in which he relates an adventure he had with a huge sea-serpent off the island of Coll.

"I was rowing in a boat," he says, "when I remarked about half a mile off an object which gradually excited my surprise. At the first glance it appeared to me like a little rock; but knowing there was no rock in that situation, I examined it attentively. I then perceived that it rose considerably above the level of the water, and after a slow movement I dis-

tinguished one of its eyes. Alarmed by the animal's extraordinary aspect and enormous size, I guided the rudder of my boat in such a manner as not to keep too far off the shore, when suddenly we saw the monster plunge in our direction.

"Persuaded that it was pursuing us, we rowed with our utmost strength. Just at the moment that we sprang upon a rock, where we climbed as high as we possibly could, we saw it glide rapidly over the surface of the water towards our boat. At some fathoms from it, finding the water deep, it reared upright its horrible head, and sweeping round, was obviously puzzled how it should disengage itself from the narrow creek it had entered.

"We could still perceive it at the distance of half a mile. Its head was large, of an oval form, and carried upon the summit of a neck which was more slender than the remainder of its body. Its shoulders, if I may so call them, had no fins, and the body diminished in size towards the tail, whose outline it was difficult to see very clearly, because the monster kept it continually under water. It seemed to move by progressive undulations from above to below. Its length was probably seventy to eighty feet. It advanced or receded more slowly each time that its head was out of the water; and when it reared it

above the sea, it evidently seemed to be looking out for distant objects.

"About the same period that I saw this marine serpent, it was discovered in the neighbourhood of the island of Canna. The crews of thirteen fishing-boats were so much alarmed at its appearance that, with one accord, they all took refuge in the nearest creek. Between them and Canna the crew on board another wherry saw it approaching with its head out of the water. One of the boatmen afterwards declared that the head was as large as a small barrel, and the eyes as big as a saucer. With this exception, I have been unable to obtain from those who met it any more details more interesting than those I have just recorded."

In the month of August 1817 it was announced to the Linnæan Society of the United States that a prodigious animal had been several times met with in Gloucester Bay, near Cape Anne, at about thirty miles from Boston. Its general character was described as that of a serpent; it swam with an astonishing rapidity, like to a series of buoys or barrels, each plunging in its turn into the water. It was in tranquil weather only, and when the sun was shining with all his splendour, that the monster made its appearance before the astonished eyes of the fishermen.

The Society immediately appointed a committee to examine into and report upon the tales circulated respecting this singular animal. The committee repaired to the spot; interrogated a great number of witnesses; made, in a word, a most searching inquiry, not less rigid than is pursued by a magistrate when investigating the circumstances which have accompanied a mysterious crime.

The report issued by the committee excited great attention in America, and the entire agreement of the depositions of the various witnesses—in so far, at least, as concerned the principal facts—was amply sufficient to prove that the inquiry had not been directed to any empty reverie or idle hoax, but to a genuine incident.

One of the witnesses had seen the sea-serpent only from a distance. With his telescope he counted eight separate portions, and this appearance he attributed to the animal's undulations in a vertical direction. Another saw, on the 10th of August, the reptile gliding swiftly just beneath the surface, and again caught sight of it, on the 25th, tranquilly extended upon the waves, its deep brown body covering a length of fifty feet. A third individual compared its head to that of a rattlesnake, but as large as that of a horse, and with a body fully one hundred feet long. Between

THE AMERICAN SEA-SERPENT.

this maximum and the minimum of fifty feet all the witnesses, we may observe, placed their calculations. Some had seen it open its jaws, like those of a terrestrial reptile. In its swimming, which was sometimes rapid, sometimes slow, it described circle after circle, or struck forward in a straight line. Sometimes it kept its head raised a foot above the surface of the sea.

On the 14th and 28th several guns were fired at it; and at each discharge it turned round, made towards the boat, then diving under the keel, reappeared a few fathoms beyond. But at the second attack, probably being wounded, it kept away and returned no more, and by this means terminated the observations of which it had been the object.

Another American sea-serpent was observed by a party of five British officers while crossing in a yacht from Halifax to Mahone Bay. Not more than two hundred yards from them they saw a sea-monster, whose head and neck were precisely like those of a common snake, in the act of swimming, the head being so far elevated and thrown forward by the curve of the neck as to enable them to see the water under and beyond it. The creature rapidly passed, but they judged its length to be about eighty feet. Its head appeared to be about six feet in length, and

they saw about as much of the neck. The entire appearance of the creature convinced them that they had been favoured with a view of the genuine sea-serpent.

The great sea-serpent is next heard of in its old familiar resort—the Norwegian coast—where, in the neighbourhood of Christiansund and Molde, it was seen at different times in 1846 by a large number of respectable witnesses. One man, when sitting in his boat during the dog days, saw it twice within two hours. The second time it came so close to him—within six feet—that he got thoroughly alarmed, and commending his soul to God, he lay down in the boat with his head only high enough to keep an eye on the monster. It passed him, and then returned; but a breeze springing up, it finally disappeared.

The number of respectable Norwegians who testify to having seen a sea-serpent in the same neighbourhood at that time renders it certain that some unusually large sea-monster had been then visiting the locality. Of their various narratives the most satisfactory in every respect is that of Archdeacon Deinbolt of Molde. He states that on 28th July 1845, while four of the inhabitants of Molde were out fishing in Romsdal-fiord during a warm sunshiny day, they saw a long marine animal, which slowly ad-

vanced by the aid, as they thought, of two fins on the fore part of the body. They seem, however, only to have guessed the existence of fins by the commotion in the water on both sides of the creature's head.

"The visible part of the body," says the archdeacon, "appeared to be between forty and fifty feet in length, and moved in undulations like a snake. The body was round, and of a dark colour, and seemed to be several ells in thickness. As they discerned a waving motion in the water behind the animal, they concluded that part of the body was concealed under water. That it was one continuous animal they saw plainly from its movement. When the animal was about one hundred yards from the boat they noticed tolerably correctly its fore parts, which ended in a sharp snout. Its colossal head raised itself above the water in the form of a semicircle; the lower part was not visible. The colour of the head was dark brown, and the skin smooth. They did not notice the eyes, or any mane or bristles on the throat. When the serpent came about a musket-shot near, Lund fired at it, and was certain the shots hit it on the head. After the shot it dived, but came up immediately. It raised its neck in the air, like a snake preparing to dart on its prey. After he had turned and got his body in a straight line, which he

appeared to do with great difficulty, he darted like an arrow against the boat. They reached the shore; and the animal, perceiving it had come into shallow water, dived immediately and disappeared in the deep.

"Such is the declaration of these four men; and no one has cause to question their veracity, or imagine that they were so seized with fear that they could not observe what took place so near them. There are not many here, or on other parts of the Norwegian coast who longer doubt the existence of the sea-serpent. The writer of this narrative was a long time sceptical, as he had not been so fortunate as to see this monster of the deep; but after the many accounts he has read, and the relations he has received from credible witnesses, he does not dare longer to doubt the existence of the sea-serpent."

It is chiefly the points in this very minute description of a sea-serpent that led Mr. Henry Lee to propound the theory that in this and most other cases of the occurrence of the sea-serpent, the creature seen was in reality a giant cuttle-fish. These, as will be shown later on, occur in Norwegian waters. They grow to a length of over fifty feet, and in calm warm weather they float on the surface. Their lozenge-shaped tail might readily be mistaken for the head, seeing those creatures shoot through the water tail

first. That part of the body between the tail and the tentacles might well pass for the neck; while a long and supple tentacle floating behind on the surface might readily convey the idea of a serpentine body. It is hard to understand the boiling of the water referred to by Deinbolt, if the creature possessed the gliding motion of a snake. On the other hand, the forcible ejection of water from the funnel, necessary for the creature's propulsion, would quite explain the commotion in the water, if what the four boatmen of Molde saw was no sea-serpent, but only a giant cuttle-fish.

The belief in the existence of a great sea-serpent by the Norwegians is unhesitating, and nothing astonishes them more than the scepticism which prevails in this country on the point. A writer in the *Times*, who spent three summers in Norway, says:—

"I have repeatedly conversed with the natives on this subject. A parish priest residing on Romsdal-fiord, about two days' journey south of Drontheim, an intelligent person, whose veracity I have no reason to doubt, gave me a circumstantial account of one which he had himself seen. It rose within thirty yards of the boat in which he was, and swam parallel with it for a considerable time. Its head he described as equalling a small cask in size, and its mouth, which it

repeatedly opened and shut, was furnished with formidable teeth. Its neck was smaller, but its body—of which he supposed that he saw about half on the surface of the water—was not less in girth than that of a moderately-sized horse.

"Another gentleman, in whose house I stayed, had also seen one, and gave a similar account of it. It also came near his boat upon the fiord, when it was fired at; upon which it turned and pursued them to the shore, which was luckily near, when it disappeared. They expressed great surprise at the general disbelief attaching to the existence of these animals amongst naturalists, and assured me that there was scarcely a sailor accustomed to those inland lakes who had not seen them at one time or another."

CHAPTER IV.

THE "DÆDALUS" SEA-SERPENT.

INTEREST in the vexed question of the sea-serpent was revived in England by the news received in October 1848 that the creature had been seen by the officers on board her Majesty's ship *Dædalus*, between the Cape of Good Hope and St. Helena.

In reply to a communication from the Admiralty on the subject, Captain M'Quhae of the *Dædalus* stated that on the 6th of August, when the weather was dark and cloudy, a midshipman reported that something very unusual was rapidly approaching the ship from before the beam. "On our attention," he says, "being called to the object, it was discovered to be an enormous serpent, with head and shoulders kept about four feet constantly above the surface of the sea; and, as nearly as we could approximate by comparing it with the length of what our main-top-sail would show in the water, there was at the very least sixty feet of the animal *à fleur d'eau*, no portion of which was,

to our perception, used in propelling it through the water, either by vertical or horizontal undulation. It passed rapidly, but so close under our lee quarter, that had it been a man of my acquaintance I should easily have recognized his features with the naked eye; and it did not, either in approaching the ship or after it had passed our wake, deviate in the slightest degree from its course to the south-west, which it held on at the pace of from twelve to fifteen miles per hour, apparently on some determined purpose.

"The diameter of the serpent was about fifteen or sixteen inches behind the head, which was without any doubt that of a snake; and it was never, during the twenty minutes it continued in sight of our glasses, once below the surface of the water: its colour was dark brown, and yellowish-white about the throat. It had no fins, but something like the mane of a horse, or rather a bunch of sea-weed, washed about its back. It was seen by the quartermaster, the boatswain's mate, and the man at the wheel, in addition to myself and the officers above mentioned.

"I am having a drawing of the serpent made, from a sketch taken immediately after it was seen, which I hope to have ready for transmission to my Lords Commissioners of the Admiralty."

Lieutenant Drummond, the officer of the watch,

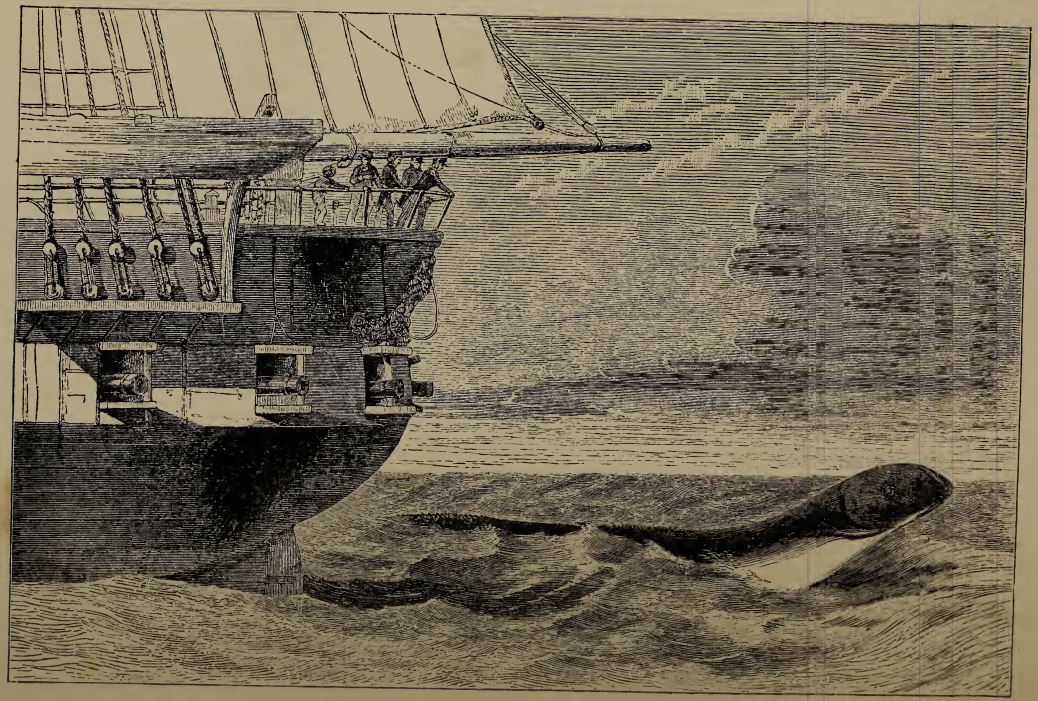
THE SEA-SERPENT WHEN FIRST SEEN FROM H.M. SHIP DÆDALUS.

entered in his log-book at the time his impressions of what he saw. His statement is as follows:—

"In the four to six watch, at about five o'clock, we observed a most remarkable fish on our lee-water, crossing the stern in a south-west direction. The appearance of its head, which with the back fin was the only portion of the animal visible, was long, pointed, and flattened at the top, perhaps ten feet in length, the upper jaw projecting considerably. The fin was perhaps twenty feet in the rear of the head, and visible occasionally. The captain also asserted that he saw the tail, or another fin, about the same distance behind it. The upper part of the head and shoulders appeared of a dark brown colour, and beneath the under jaw a brownish-white. It pursued a steady, undeviating course, keeping its head horizontal with the surface of the water, and in rather a raised position, disappearing occasionally beneath a wave for a very brief interval, and not apparently for purposes of respiration. It was going at the rate of perhaps from twelve to fourteen miles an hour, and when nearest was perhaps one hundred yards distant. In fact, it gave one quite the idea of a large snake or eel. No one in the ship has ever seen anything similar; so it is at least extraordinary. It was visible to the naked eye for five minutes, and with a glass for

perhaps fifteen more. The weather was dark and squally at the time, with some sea running."

The publication of this further testimony to the existence of what seemed to be a huge sea-serpent gave rise to much controversy. Naturalists were loath to recognize in it anything absolutely new. One suggested that it might be a survivor of the great marine reptiles of former periods, while another thought it might be the *Plesiosaurus*. Professor Owen pooh-poohed this view, but could think of nothing more likely than that the monster seen from the *Dædalus* was a great seal. The most likely species was, in his opinion, the sea-elephant, which attains the length of from twenty to thirty feet. These great seals, he says, abound in certain of the islands of the Southern and Antarctic Seas, from which an individual is occasionally floated off upon an iceberg. When a large sea-elephant is thus borne off to a distance from its native shore, it is compelled to return for rest to its floating abode, after it has made its daily excursions in quest of the fishes or squids that constitute its food. It is thus brought by the iceberg into the latitudes of the Cape, and perhaps farther north before the berg has melted away. Then the poor seal is compelled to swim as long as strength endures; and in such a predicament he imagines the



THE SEA-SERPENT PASSING UNDER THE STERN OF THE DÆDALUS.

creature was that was seen rapidly approaching the *Dædalus* from before the beam, scanning probably its capabilities as a resting-place, as it paddled its long stiff body past the ship.

Captain M'Quhae made a spirited reply to Professor Owen, which, as it throws some additional light on the creature's appearance and movements, may here be quoted.

"Professor Owen," he says, "correctly states that I evidently saw a large creature moving rapidly through the water very different from anything I had before witnessed—neither a whale, a grampus, a great shark, an alligator, nor any of the large surface-swimming creatures fallen in with on ordinary voyages. I now assert, neither was it a common seal nor a sea-elephant, its great length and its totally different physiognomy precluding the possibility of its being a *phoca* of any species. The head was flat, and not a capacious vaulted cranium; nor had it a stiff inflexible trunk—a conclusion at which Professor Owen has jumped, most certainly not justified by the simple statement that no portion of the sixty feet seen by us was used in propelling it through the water, either by vertical or horizontal undulation.

"It is also assumed that the calculation of its length was made under a strong preconception of the nature

of the beast—another conclusion quite contrary to the facts. It was not until after the great length was developed by its nearest approach to the ship, and until after that most important point had been duly considered and debated—as well as such could be in the brief space of time allowed for so doing—that it was pronounced to be a serpent by all who saw it, and who are too well accustomed to judge of lengths and breadths of objects in the sea to mistake a real substance and an actual living body, coolly and dispassionately contemplated, at so short a distance too, for the 'eddy caused by the action of the deeper immersed fins and tail of a rapidly moving gigantic seal raising its head above the surface of the water,' as Professor Owen imagines, in quest of its lost iceberg.

"The creative powers of the human mind may be very limited. On this occasion they were not called into requisition, my purpose and desire throughout being to furnish eminent naturalists, such as the learned professor, with accurate facts, and not with exaggerated representations, nor with what could by any possibility proceed from optical illusion. And I beg to assure him that old Pontoppidan having clothed his sea-serpent with a mane could not have suggested the idea of ornamenting the creature seen

from the *Dædalus* with a similar appendage, for the simple reason that I had never seen his account or even heard of his sea-serpent until my arrival in London. Some other solution must therefore be found for the very remarkable coincidence between us in that particular, in order to unravel the mystery.

"Finally, I deny the existence of excitement or the possibility of optical illusion. I adhere to the statements, as to form, colour, and dimensions, contained in my official report to the Admiralty, and I leave them as data whereupon the learned and scientific may exercise the 'pleasures of imagination,' until some more fortunate opportunity shall occur of making a closer acquaintance with the 'great unknown,' in the present instance most assuredly no ghost."

Giant squids were as yet undiscovered, so that the suggestion that the sea-serpent of the *Dædalus* might have been one of these creatures was not made; nor is there much either in the description or in the accompanying figure to bear out Mr. Lee's cuttle-fish theory.

CHAPTER V.

RECENT SEA-SERPENTS.

Captain M'Quhae's narrative put sea-faring people on the outlook for the sea-serpent. Not many months after, when the ship *Brazilian* was sailing within forty miles of the place where the *Dœdalus* encountered the monster, the captain saw a strange object astern, apparently twenty-five to thirty feet in length, and moving from the ship with a steady sinuous motion. The head appeared to be raised several feet above the water, and seemed to have a mane running down to the floating portion, and extending to within six feet from the tail. All who saw it at once concluded that they were in presence of the great sea-serpent. To end all doubt on the point, however, it was determined that an effort should be made to capture it. A boat was accordingly lowered, and with the captain standing, harpoon in hand, it was rowed towards the monster. The closer view now obtained of it showed that it was only an im-

mense piece of sea-weed drifting with the current, and which owed its snake-like motion to the swell caused by a previous gale!

This is not the only case on record in which the sea-serpent resolved itself into sea-weed. The captain of the ship *Pekin* reported that on December 28th, 1848, when his ship was about half-way between the Cape and St. Helena, he saw an extraordinary object of considerable length in the water. With the telescope he could plainly discern a huge head and neck, covered with a shaggy-looking kind of mane, which it kept lifting at intervals out of the water. All on board saw it, and all declared it to be the great sea-serpent. A boat was lowered, and a line made fast to the "snake," when it was towed alongside and hoisted on board. It was then seen to be a piece of gigantic sea-weed, completely covered with snake-like barnacles. "So like a huge living monster did this appear," says the captain, "that had circumstances prevented my sending a boat to it, I should certainly have believed I had seen the great sea-serpent."

Captain M'Quhae's account of his adventure led also to the publication of several narratives of similar instances not before recorded. Among these was that of Surgeon Davidson, who stated that when returning to India in the *Royal Saxon*, in the year 1829, he and

the captain were at the same instant literally fixed in astonishment by the appearance a short distance ahead of an animal bearing a close resemblance to that seen by Captain M'Quhae. "It passed within thirty-five yards of the ship without altering its course in the least; but as it came abreast of us it slowly turned its head towards us. Apparently about one-third of the upper part of its body was above water, and we could see the water curling up on its breast as it moved along; but by what means it moved we could not perceive. We watched it going astern with intense interest until it had nearly disappeared, when my companion, turning to me with a countenance expressive of the utmost astonishment, exclaimed, 'Good heavens! what can that be?'"

After 1848 nothing further is heard of this sea monster till 1852, when the passengers on board the *Barham*, bound for India, got a glimpse of it. It is thus described by one of the passengers:—

"About five hundred yards from the ship there was the head and neck of an enormous snake. We saw about sixteen or twenty feet out of the water, and he spouted a long way from his head. Down his back he had a crest like a cock's comb; and was going very slowly through the water, but left a wake of about fifty or sixty feet, as if dragging a long body after

MONSTROUS SEA-WEED DISCOVERED BY THE BOATS OF THE FRENCH SHIP PEKIN, NEAR MOULMEIN, IN 1848.

him. The captain put the ship off her course to run down to him; but as we approached him he went down. His colour was green, with light spots. He was seen by all on board."

Five years later, while the ship *Castilian* was sailing within ten miles of St. Helena, it encountered what has been described by the captain and two chief officers as a great sea-serpent.

"While myself and officers," says Captain Harrington, "were standing on the lee side of the poop, looking towards the island, we were startled by the sight of a huge marine animal, which reared its head out of the water within twenty yards of the ship, when it suddenly disappeared for about half a minute, and then made its appearance in the same manner again, showing us distinctly its neck and head about ten or twelve feet out of the water. Its head was shaped like a long nun-buoy, and I suppose the diameter to have been seven or eight feet in the largest part, with a kind of scroll or tuft of loose skin encircling it about two feet from the top. The water was discoloured for several hundred feet from its head, so much so that on its first appearance my impression was that the ship was in broken water, produced, as I supposed, by some volcanic agency since the last time I passed the island. But the second appearance com-

pletely dispelled those fears, and assured us that it was a monster of extraordinary length, which appeared to be moving slowly towards the land. The ship was going too fast to enable us to reach the mast-head in time to form a correct estimate of its extreme length; but from what we saw from the deck, we conclude that it must have been over two hundred feet long. The boatswain and several of the crew who observed it from the top-gallant forecastle state that it was more than double the length of the ship, in which case it must have been five hundred feet. Be that as it may, I am convinced that it belonged to the serpent tribe. It was of a dark colour about the head, and was covered with several white spots. Having a press of canvas on the ship at the time, I was unable to round-to without risk, and therefore was precluded from getting another sight of this leviathan of the deep."

Coming to recently published accounts of the appearance of what observers regarded as the great sea-serpent, the most remarkable is that related by the officers and crew of the *Pauline*. Their vessel was on its way from Shields to Zanzibar, when in July 1875 they observed three large sperm whales, one of which was gripped round the body with two turns of what appeared to be a huge serpent. The head and

THE SEA-SERPENT AND SPERM WHALE, AS SEEN FROM THE PAULINE.

tail appeared to have a length beyond the coils of about thirty feet, its girth being eight or nine feet. The serpent whirled its victim round and round for about fifteen minutes, then suddenly dragged the whale to the bottom head first.

Five days later a similar serpent was seen about two hundred yards off, shooting along the surface, head and neck being out of the water several feet. A few moments after it was seen elevated some sixty feet perpendicularly in the air. This monster seems to have been the most snake-like among all those that have been called sea-serpents. It had no fins; it was seen grappling with its prey exactly as a boa-constrictor would have done; it carried its neck and head high as it shot along, just as the land-snake does when gliding along the ground; and it rose perpendicularly out of the water until it must almost have been standing on its tail, and land-snakes are thus also known to stand erect.

The year 1875 appears to have been a famous one for sea-serpents, one of the most noteworthy being that which was seen by a party of Americans yachting off the Massachusetts coast. Those who saw it were for the most part educated people, and were widely known and respected. The following is the story as told by one of them:—"On the 30th of July 1875 a

party of us were upon the yacht *Princess*, and while sailing between Swampscott and Egg Rock we saw a very strange creature. As nearly as we could judge from a distance of about one hundred and fifty yards, its head resembled that of a turtle or a snake, black above and white beneath. It raised its head from time to time some six or eight feet out of the water, keeping it out from five to ten seconds at a time. At the back of the neck there was a fin, resembling that of a black-fish (a small species of whale), and underneath, some distance below its throat, was a projection which looked as if it might have been the beginning of a pair of fins or flippers like those of a seal. But as to that we could not be sure, as the creature never raised itself far enough out of the water to enable us to decide. Its head seemed to be about two and a half feet in diameter. Of its length we could not judge, as only its head and neck were visible. We followed it about for perhaps two hours. It was fired at repeatedly with a Ballard rifle, but without apparent effect, though one ball seemed to strike it. It was seen and watched by the whole party upon the yacht." A person fishing in the neighbourhood while the chase was going on corroborated most of the above statement, and added that he observed on the dark surface of the creature two elon-

gated white marks about six feet in length and six inches wide. Two weeks earlier, Captain Garton, when off Plymouth, U.S., saw a somewhat similar sea monster which appeared to be pursuing a sword-fish. The head of the monster, he says, was raised at least ten feet above the ocean, but remained stationary only a moment, as it was almost constantly in motion; now diving for a moment, and as suddenly reappearing to the same height. Its length was more than a hundred feet, and its motion reminded him of that of a caterpillar. On the same day what appears to have been the same monster was observed by a passenger on board the *Roman*, in her course from Boston to Philadelphia. He states, however, that a sword-fish was attacking the sea-serpent. "When the sword-fish," he says, "first attacked him, he reared his head at least ten feet above the water, and then dived down once more. Those actions he kept repeating, so that we had a fine opportunity to scrutinize him. His head was rather flat, and closely resembled that of a turtle. The fin we first observed was on the back, several feet from the head, while small fins protruded on each side. The body was at least eighty inches in diameter, and presented a shiny surface covered with large, coarse scales. When he moved his head, the water seemed to fairly boil as he rapidly

clove his way through the waves, so that by far the largest portion of his body must have been under the water. We estimated his length to be at least sixty feet; but the pilot informed us that a few weeks previously he rose alongside the steamer *Roman*, and they reported him to be one hundred and twenty feet long." The Rev. J. G. Wood has carefully collected these different narratives on the spot, and has formed a theory as to the nature of the creature which will be noticed later on.

Two years later, what appears to have been a very unserpent-like sea-serpent was seen by Lieutenant Haynes, Commander Pearson, and other officers of the royal yacht *Osborne* when off the coast of Sicily.

"On the evening of June 6th," says the lieutenant, "the sea being perfectly smooth, my attention was first called by seeing a ridge of fins above the surface of the water, extending about thirty feet, and varying from five to six feet in height. On inspecting it by means of a telescope, at about one and a half cable's distance, I distinctly saw a head, two flippers, and about thirty feet of an animal's shoulder. The head, as nearly as I could judge, was about six feet thick, the neck narrower, about four to five feet, the shoulder about fifteen feet across, and the flippers each about fifteen feet in length. The movements of the flippers

THE SEA-SERPENT IN THE MEDITERRANEAN, AS SEEN FROM H.M. YACHT OSBORNE.
(*The Row of Fins as seen at first.*)

were those of a turtle, and the animal resembled a huge seal, the resemblance being strongest about the back of the head. I could not see the length of the head, but from its crown or top to just below the shoulder (where it became immersed) I should reckon about fifty feet. The tail end I did not see, being under water, unless the ridge of fins to which my attention was first attracted, and which had disappeared by the time I got a telescope, was really the continuation of the shoulder to the end of the object's body. The animal's head was not always above water, but was thrown upwards, remaining above for a few seconds at a time, and then disappearing. There was an entire absence of 'blowing' or 'spouting.' I herewith beg to enclose a rough sketch showing the view of the 'ridge of fins,' and also of the animal in the act of propelling itself by its two fins."

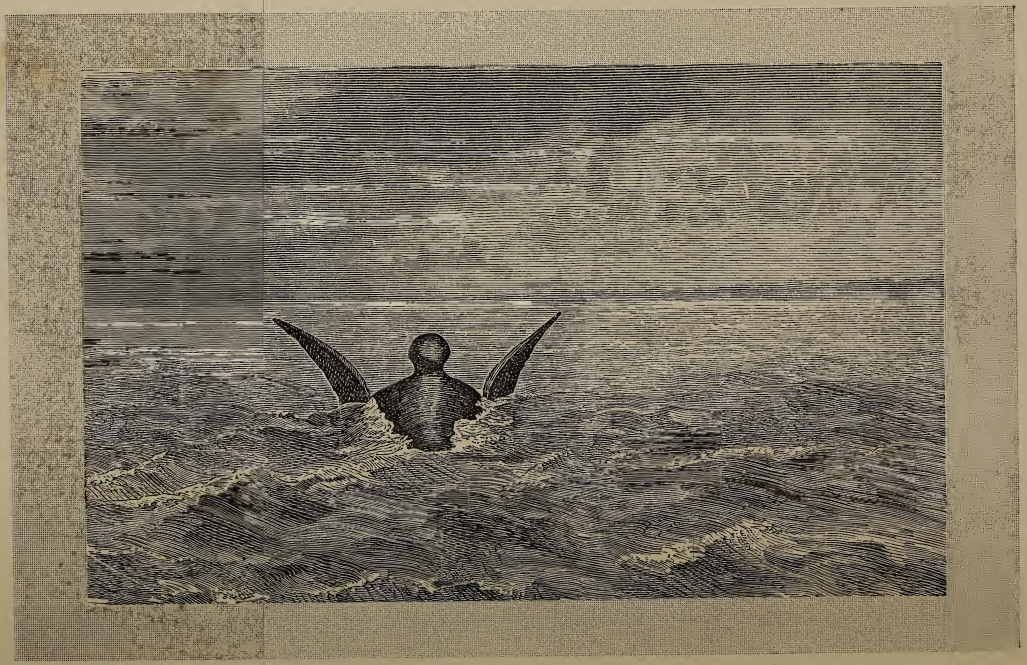
It is easy to see that this creature could not have been a snake, possessing, as it appears to have done, the dorsal fins of a basking shark, the flippers of a turtle, and the head of a seal. This conundrum of an animal has been fairly given up by naturalists as unexplainable by a reference to any known group of animals.

Two years later—namely, in 1879—Major Senior reported that while on board the steam-ship *City of Baltimore* in the Gulf of Aden he observed a long

black object darting rapidly in and out of the water, and advancing nearer to the vessel. The shape of the head was not unlike pictures of the dragon he had often seen, with a bull-dog expression of the forehead and eyebrows. When the monster had drawn its head sufficiently out of the water, it let its body drop as if it were a log of wood prior to darting forward under the water. This motion caused a splash of about fifteen feet in length on either side of the neck much in the shape of a pair of wings.

To account for many of the sea-serpent stories that have just been narrated, as well as others left unnoticed, it is not necessary to believe in the existence of any hitherto unknown animal. The sea-serpent has in some cases resolved itself into a piece of giant sea-weed, in others into a procession of travelling porpoises. A flock of sea-birds flying in line close to the water has more than once been mistaken for one of those sea monsters, until a sudden change in the direction of flight of the birds, or the application of a telescope, at once made manifest the true nature of the appearance. The theory also that in many cases the sea-serpent was in reality a giant cuttle-fish has much in its favour.

There are a few cases, however, such as that of the monster seen from the *Dædalus*, which cannot be



THE SEA-SERPENT IN THE MEDITERRANEAN, AS SEEN FROM H.M. YACHT OSBORNE.
(*The Head and Flippers.*)

readily explained by a reference to any known animal, and which go far to justify the belief that there dwells in the sea a huge, serpent-like creature, of which glimpses have been had, but which has yet to be captured and described. Seeing that no known animal now living quite meets the case, naturalists have sought among extinct animals for anything approaching in form the so-called sea-serpent, and here they have been rather more successful. In the rocks of the Mesozoic age are found the remains of huge marine lizards—plesiosaurs and pliosaurs, creatures described by Buckland as having the head of a lizard, the teeth of a crocodile, a neck of enormous length resembling the body of a serpent, the ribs of a chameleon, and the paddles of a whale. They were serpent-like creatures propelled by paddles; a description that seems best to agree with the so-called sea-serpent. Accordingly those naturalists, like Gosse, who believe in the existence of the great sea-serpent are inclined to regard it as a living descendant of some one of those ancient saurians.

That a more or less modified descendant of those ancient sea-lizards should still live in the waters of the ocean is by no means impossible, although it must be added that no fossil remains of them have been found in Tertiary rocks.

As giving probability to the view that such creatures may still exist in the ocean, although no recent remains of them have been found, Mr. Gosse refers to a remarkable incident that occurred to Captain the Honourable George Hope. When in command of her Majesty's ship *Fly* in the Gulf of California, this officer, when the sea was perfectly calm and transparent, saw at the bottom a large marine animal with the head and general figure of an alligator, except that the neck was much longer, and that instead of legs the creature had four large flippers somewhat like those of turtles, the front pair being larger than those behind. The creature was distinctly visible, and all its movements could be observed with ease. It appeared to be pursuing its prey at the bottom of the sea. Its movements, he adds, were somewhat serpentine.

If the above be an accurate description of what Captain Hope saw, the creature can scarcely have been other than one of those long-lost marine reptiles.

Founding on the evidence obtained by him regarding the American sea-serpent seen in 1875, the Rev. J. G. Wood came to the conclusion that the monster must have been a cetacean. "Every movement of the creature," he says, "is cetacean. The habit of pushing the head out of the water is distinctly ceta-

cean, the sperm whales being much addicted to this custom. The caterpillar-like bend of the body is also cetacean, and may be witnessed any day when a school of porpoises curve their graceful course over the waves." A snake-like cetacean would exactly meet the case, but no such form is at present known. In Tertiary times, however, a creature closely answering this description existed in the zeuglodon, the fossil vertebræ of which have been discovered in Alabama. The length of this creature when alive must have been about seventy feet. The continued existence of a zeuglodon-like animal would, according to Mr. Wood, best explain the sea-serpent.

It is no doubt remarkable that, if such a monster, whether cetacean or saurian, really exists, its remains should not have been found; but this is by no means a conclusive argument against the existence of the sea-serpent. Giant cuttle-fishes, reaching to a total length of about eighty feet, have been living in the ocean for ages, yet it is only during the past ten years that we have become fully satisfied by their actual capture of their existence. There are large land animals, such as one of the rhinoceroses, of which only one specimen has as yet been found, and every deep-sea exploration brings to light troops of marine animals hitherto unknown. With the sea

occupying two-thirds of the surface of the globe, and descending over large tracts to depths varying from two to five miles, it would be presumptuous for any one to say that the ocean does not harbour in its recesses a great serpent-like monster still practically unknown to man.

CHAPTER VI.

THE LEGENDARY KRAKEN.

In the early days, when as yet the sea had not become the highway of the nations, little was known of the denizens of the deep. The element in which they lived, with its dangers and its depths, forbade too close a scrutiny; but it gave free play to the glowing imaginations of the dwellers by the sea, who thus manufactured monsters of their own out of the living wonders of the deep.

Such a monster was the kraken, famous in the traditions of the Scandinavian coasts. According to Pontoppidan, the Norwegian bishop, who published in 1750 an account of this mysterious sea monster, the Norse fishermen one and all affirm that when they row out several miles to sea, particularly in the hot summer days, they occasionally find a depth of twenty or thirty fathoms, and even less, where, from their position, they expect a depth of eighty or a hundred fathoms. This is to them a pleasing circumstance, as

in such places they always find abundance of fish, especially of cod and ling, their lines being no sooner out than they are ready for drawing in with a fish on every hook. They know by this that the kraken is at the bottom, and that to its presence the unusual shallowness of the fishing-ground is due.

Sometimes, he says, twenty boats or more are thus engaged fishing at a moderate distance from each other, and the only thing they have to watch is whether the depth continues the same, or whether it becomes shallower. In the latter event they know that the kraken is rising to the surface, and that it is time consequently for them to be off. Accordingly as soon as the water shows shallowing they cease fishing, take to their oars, and get away as fast as they can. They stop as soon as they have reached water of the natural depth, and being now out of danger they rest on their oars and watch the monster as it rises slowly to the surface.

Its back or upper part, says Pontoppidan, appears to be about a mile and a half in circumference, and at first resembles a number of small islands surrounded with something that floats about like seaweed. Here and there a larger rising, like a sand-bank, is observed, on which fishes of various sorts are seen continually leaping about till they roll off at the sides

into the water. At last several bright points or horns appear, which grow in thickness the higher they rise above the surface of the water, and sometimes they stand up as high and as large as the masts of a middle-sized ship. These, it seems, are the creature's arms; and such is their strength, that if they seized the largest man-of-war they would infallibly drag it to the bottom.

After remaining a short time at the surface, the kraken descends as slowly as it rose; but even then the danger is not less for any vessel within reach, as in sinking it displaces so great a volume of water as to give rise to a whirlpool capable, like that of the Maelstrom, of drawing everything down with it.

Its arms, he affirms, are used for moving with, as also for gathering its food. For the latter purpose the kraken is likewise provided with a strong and peculiar scent which it can emit at certain times, and by means of which other fish are attracted towards it. As if this were not enough, he tells, on the testimony of many old fishermen, of another curious provision in the kraken for capturing its prey. They had observed that for some months the kraken is constantly eating, and that in other months it voids its excrement. The voiding of the latter renders the surrounding water thick and turbid—a muddiness which

is so agreeable to the senses of fishes that they gather from all quarters to it. Seizing its opportunity, the monster lays hold of them with its arms and swallows them, the digestive process that follows converting them into bait for other fishes.

In all accounts the kraken is represented as being large enough to be mistaken for an island. On one occasion some fishermen are said to have landed on its back, taking it for land; but when they had lighted a fire on it, the creature sank beneath their feet, and engulfed them in the eddying waters. More fortunate than these poor fishermen was a certain Norwegian saint, who when sailing on Sunday on board a Norwegian ship regretted that he could not celebrate mass on dry land. Immediately there arose from the waves at no great distance a new island. Everybody landed, and the good saint officiated at an altar which was immediately erected. But they had scarcely quitted the island and regained the ship before it gave a shudder and sank deep into the sea. The island was a kraken.

This sea monster was believed to be of rare occurrence, and was generally regarded as immortal. This, however, is hardly consistent with the account given by Pontoppidan of the finding of the dead carcass of one. In 1680, as he was told, a kraken had come

THE KRAKEN, AS SEEN BY THE EYE OF IMAGINATION.

into the water that runs between the rocks and cliffs of the parish of Alstahoug, though its general custom was to keep several leagues from land. It happened that its long extended arms caught hold of some trees standing near the water, which might easily have been torn up by the roots; but, besides, he had further entangled himself in some openings or clefts in the rocks, where he stuck so fast, and hung so unfortunately, that he could not work himself out, but perished and rotted on the spot. The carcass, which was a long while decaying, and filled great part of that narrow channel, made it, he says, almost impassable by its intolerable stench.

When the bishop comes to recount the harm done by the kraken he has to confess that there is little to be told. This, he hints, may be due not to any supposed harmlessness in this huge creature, but to the thoroughness with which it destroyed—that, in fact, no one attacked ever lived to tell the tale. Passing, however, from conjecture to facts, he tells of two fishermen who accidentally got into a slimy piece of water like a morass—the surroundings usually produced by the presence of a kraken. They immediately tried to get out of the place; but before they could accomplish this one of the creature's arms came down on their boat and crushed part of it, so

that they had the utmost difficulty in saving their lives on the wreck, although the sea was calm, as it is always represented to have been when this monster appeared on its surface.

While there is much to smile at in the accounts of the legendary kraken, the animal itself is not to be dismissed as altogether mythical. Its numerous arms and the use to which it put them, its habit of rendering the water thick and turbid, as well as its musky scent, all point to one or other of the numerous class of cuttle-fishes as the true original of the Scandinavian kraken. Ignorance and superstitious wonder, no doubt, led the Norsemen to exaggerate its size, and to clothe it with unearthly terrors; but the reader will see in the following account of what is now known regarding the cuttle-fishes that they are both big enough, and in many cases hideous enough, to have suggested such a monster as the kraken to an ignorant and credulous people.

CHAPTER VII.

THE CUTTLE-FISH OR SEPIA.

No more curious animals exist in the sea than cuttle-fishes. They are not fishes at all, but are molluscs, like oysters and snails. They are called "head-footed," because around their mouth a large number of tentacles or feet are arranged; and it will by-and-by be seen how useful these organs are to the creatures possessing them.

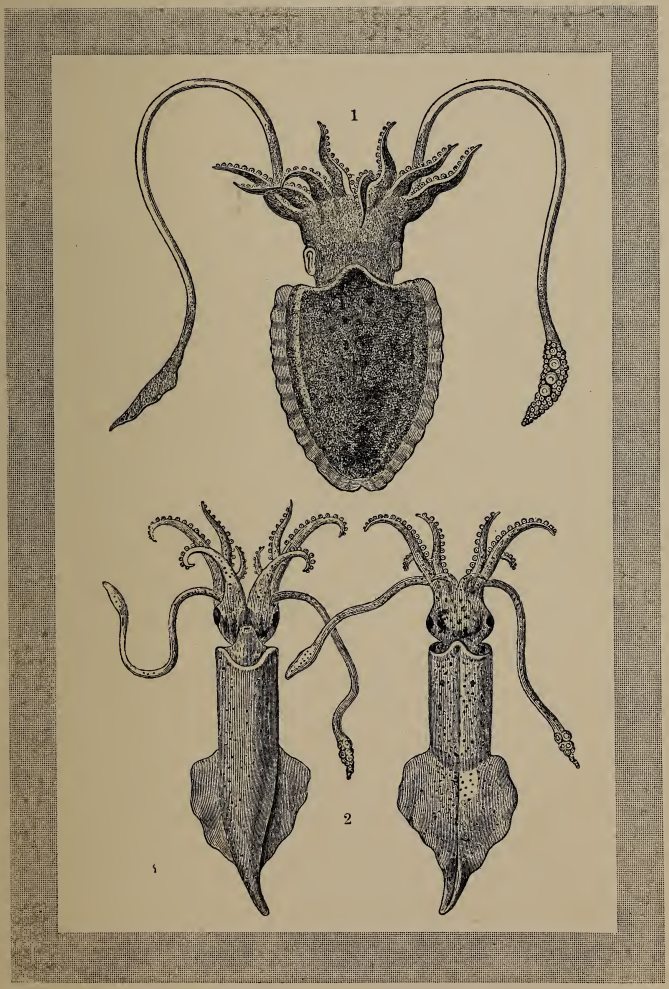
Sometimes the tentacles are used as feet for walking with, but as a rule these creatures don't walk, they swim; and no other creatures in the world have so curious a means of moving themselves from one place to another. In front of the body is a funnel, and from this, when they want to progress rapidly, they forcibly expel a stream of water, with the result that they are propelled backwards—that is, in the opposite direction from the current issuing from the funnel.

Another curious organ in connection with the funnel is the ink-bag. This sac contains a black

fluid, and when the cuttle-fish is menaced with danger or otherwise irritated it shoots out a quantity of its inky ammunition through its funnel, and under cover of the dusky cloud thus produced it seeks a hiding-place. "I had followed," says a recent observer, "one of those animals to a small hole in a rock. In vain I solicited him to come out by gentle pulls with a boat-hook. At last, when they were harder than he liked, he discharged the contents of his ink-bag all over me, and spoiled my waistcoat and trowsers completely—that dye requiring no mordant, and being, as far as I know, indelible."

There are three very distinct kinds of those "head-footed" molluscs—namely, the cuttle-fishes proper, the octopuses, and the squids. A common object on the sea-shore in the south of England is the cuttle-bone, or sea-biscuit, as it is sometimes called from its shape. This is the internal shell of the common cuttle-fish, and is much more frequently seen than is the creature which grows it. It is a small but beautiful animal, its body being striped like that of the zebra; and it has ten arms, two of them being longer than the others.

It has the best supply of ink of all those creatures, and is the one that uses it most readily. On the least provocation it discharges an inky cloud; and



1. COMMON CUTTLE-FISH. 2. CALAMARY (SQUID).
(*Upper and Under Sides.*)

when put into an aquarium, this creature, although only a few inches in length, will in a second or two darken all the water in a tank containing a thousand gallons. The ink of this cuttle-fish was formerly used in writing, and from it is formed the genuine artists' sepia. Fishermen in the south of England when they catch cuttles for bait always cut out and dry the ink-bag, which they afterwards sell to artists' colourmen for the manufacture of this permanent black.

Used in this country as bait, the cuttle in the Mediterranean countries is prized as an article of food.

"One of the most striking spectacles at night on the coasts of the Ægean Sea," says Professor Forbes, "is to see the numerous torches glancing along the shores and reflected by the still and clear sea, borne by poor fishermen paddling as silently as possible over the rocky shallows in search of the cuttle-fish, which when seen lying beneath the waters in wait for its prey they dexterously spear ere the creature has time to dart, with the rapidity of an arrow, from the weapon about to transfix his soft but firm body."

It is also fished by means of a dredge, and during the month of March the fishermen use a living female cuttle fastened to a rope, or an imitation formed of wood and made attractive to the male sex by being

ornamented with bits of glass. Fishing with either of them is said to be both productive and amusing, especially on a moonlight night.

They are also attracted by light; and Jonathan Couch tells of a fisherman who was wont on dark nights to hold a lighted lantern close to the water, when immediately the cuttles gathered sufficiently near the light to enable him to capture them readily without bait or hook.

Until aquaria were established little was known of the habits of this elegant creature. It has lived in the famous aquarium at Brighton, and there Mr. Henry Lee closely observed its ways.

"It loves," he says, "the daylight, and the freedom of the open sea. Its predatory acts are not those of a concealed and ambushed brigand lying in wait behind a rock or peeping furtively from within the gloomy shadow of a cave, but it may better be compared to the warlike Comanche vidette seated motionless on his horse, and scanning from some elevated knoll a wide expanse of prairie in readiness to swoop upon a weak or unarmed foe. Poised near the surface of the water, like a hawk in the air, the sepia moves gently to and fro in its tank by graceful undulations of its lateral fins.....Only when some small fish is given to it as food is its facility of rapid

motion displayed. Then, quickly as a kingfisher darts upon a minnow, it pounces on its prey, infolds it in its fatal embrace, and retires to a recess of its abode to tear it piecemeal with its horny beak, and rend it into minutest shreds with its jagged tongue. In shallow water, however, it will often rest for hours on the bottom after a hearty meal, looking much like a sleepy tortoise."

The cuttle-fish, as has been already mentioned, has two long and eight short arms or tentacles. That these two kinds of limbs serve different purposes is proved by the following circumstance, related of a cuttle in an American aquarium :—

He had been without food for a month, when a large-sized fish was put into the tank beside him. No sooner had he perceived it, than with prodigious speed and precision he unrolled and launched forward his two long arms, seized the fish, and drew it towards his mouth. The long arms were then retracted, and disappeared, but the short ones wrapped themselves closely around the body of the unfortunate fish, which never made a movement after it was caught. The sepia swam about in all directions for nearly an hour, eating the while; he then let the remains of the fish drop to the bottom of the aquarium, having opened the skull and devoured the brain as well as a por-

tion of the muscles of the back. The long arms thus seize the food, while the short ones afterwards hold it.

Small though the cuttle is, it does considerable damage to the fisheries in districts where it is abundant. Thus in some localities infested by them the drift-net fishing has had to be abandoned owing to their devouring the fish, or at least rendering them unsaleable by tearing them with their parrot-like beak as they hang from the meshes of the net.

It sometimes comes to grief through its rapid backward motion, especially when close to the shore in calm weather. "Not a ripple," says Professor Forbes, "breaks upon the pebbles to warn it that the shore is near. An enemy appears: the creature ejects its ink, like a sharpshooter discharging his rifle ere he retreats; and then darting away, tail foremost, under cover of the cloud, grounds itself high upon the beach and perishes there."

The cuttle is too elegant and too small—although a Chinese species is said to have a "bone" nearly two feet in length—to have been ever developed, even by the most imaginative of mankind, into the monstrous kraken.

CHAPTER VIII.

THE OCTOPUS.

THE octopus, which forms the second type of those head-footed molluscs, is more likely than the cuttle-fish to have formed the counterpart in nature of the Scandinavian monster. Its powerful suckers, the serpent-like motion and enormous strength of its arms, its considerable size, and above all its hideous appearance, are well calculated to impress the superstitious.

The octopus, as its name implies, has only eight tentacles, and these all of the same size. Each of them is provided with one hundred and twenty pairs of suckers, every one of the latter more perfect than our best cupping-glasses. "If the poulpe," as the octopus is also called, "but touch its prey, it is enough; once a few of those tenacious suckers get firm hold, the swiftness of the fish is unavailing, as it is soon trammelled on all sides by the firmly-holding tentacles, and dragged to the mouth of its destroyer."

The octopus is a night feeder, sheltering itself from the light of day and from observation in the crannies of submarine rocks, and stalking forth at night in search of the fish, crustaceans, and molluscs which form its prey. It retreats to its former hiding-place in the morning—a circumstance which enabled one individual to make depredations on various tanks in the Brighton Aquarium without detection or even suspicion for some time. At length, having grown careless, it one night so gorged itself with the young lumpfishes in an adjoining tank that it was unable to go home, and so was caught next morning "red-handed."

One of the best accounts of the habits of the octopus is that given by Lord in his "Naturalist in British Columbia:"—

"The ordinary resting-place of this hideous sea-beast was," he says, "under a large stone, or in the wide cleft of a rock, where an octopus can creep and squeeze itself with the flatness of a sand-dab or the slipperiness of an eel. Its modes of locomotion are curious and varied: using the eight arms as paddles, and working them alternately, the central disk representing a boat, octopuses row themselves along with an ease and celerity comparable to the many-oared caïque that glides over the tranquil waters of the Bosphorus. They can ramble at will over the sandy

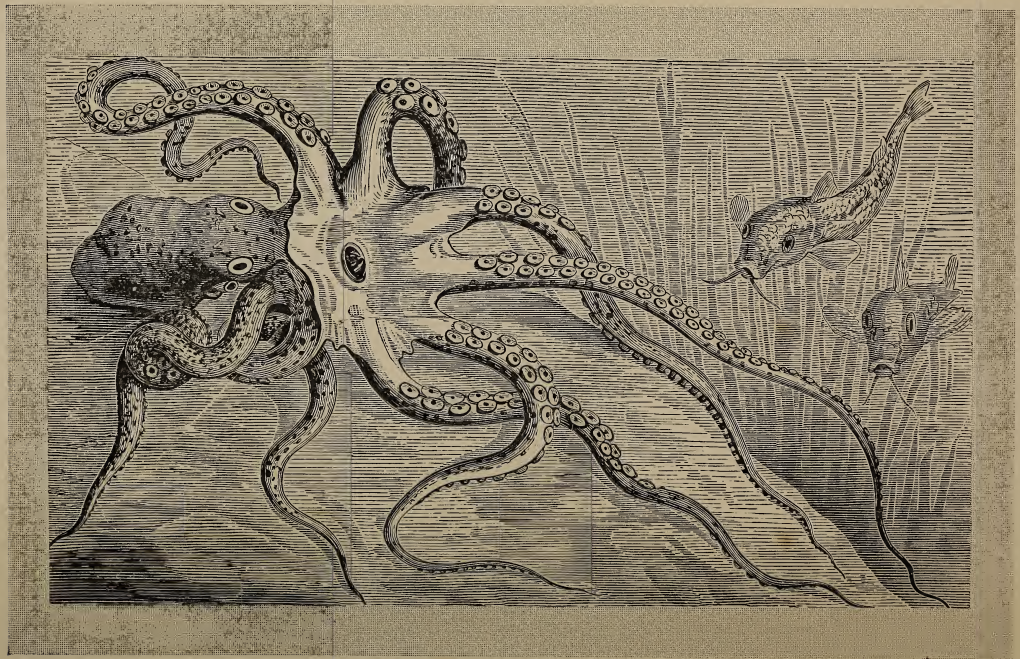
roadways intersecting their submarine parks, and, converting arms into legs, march on like a huge spider. Gymnasts of the highest order, they climb the slippery ledges as flies walk up a window-pane; attaching the countless suckers that arm the terrible limbs to the face of the rocks, or to the wrack and sea-weed, they go about back downward, like marine sloths, or, clinging with one arm to the waving algæ, perform a series of trapeze movements that Leotard might view with envy.

"I do not think, in its native element, an octopus often catches prey on the ground or on the rocks, but waits for them just as the spider does, only the octopus converts itself into a web, and a fearful one too. Fastening one arm to a stout stalk of the great sea-wrack, stiffening out the other seven, one would hardly know it from the wrack amongst which it is concealed. Patiently it bides its time, until presently a shoal of fish comes gaily on. Two or three of them rub against the arms. Fatal touch! As though a powerful electric shock had passed through the fish and suddenly knocked it senseless, so does the arm of the octopus paralyze its victim; then winding a great sucker-clad cable round the palsied fish, it draws the dainty morsel to the centre of the disk, when the beaked mouth seizes and soon sucks it in.

"I am perfectly sure, from frequent observations, the octopus has the power of numbing its prey; and the sucking disks along each ray are more for the purposes of climbing and holding on whilst fishing than for capturing and detaining its slippery prisoners.

"The Indian looks upon the octopus as an alderman does on turtle, and devours it with equal gusto and relish, only the savage roasts the glutinous carcass instead of boiling it.

"His mode of catching octopuses is crafty in the extreme, for Redskin well knows, from past experience, that were the octopus once to get some of its huge arms over the side of the canoe, and at the same time a holdfast on the wrack, it could as easily haul it over as a child could upset a basket. Paddling the canoe close to the rocks, and quietly pushing aside the wrack, the savage peers through the crystal water until his practised eye detects an octopus, with its great rope-like arms stiffened out, waiting patiently for food. His spear is twelve feet long, armed at the end with four pieces of hard wood, made harder by being baked and charred in the fire; these project about fourteen inches beyond the spear-haft, each piece having a barb on one side, and are arranged in a circle round the spear-end, and lashed firmly on



THE OCTOPUS AND ITS PREY.

with cedar bark. Having spied out the octopus, the hunter passes the spear carefully through the water until within an inch or so of the centre disk, and then sends it in as deep as he can plunge it. Writhing with pain and passion, the octopus coils its terrible arms round the haft. Redskin, making the side of his canoe a fulcrum for his spear, keeps the struggling monster well off, and raises it to the surface of the water. It is dangerous now: if it could get a hold-fast on either savage or canoe, nothing short of chopping off the arms piecemeal would be of any avail.

"But the wily Redskin knows all this, and has taken care to have another spear, unbarbed, long, straight, smooth, and very sharp, and with this he stabs the octopus where the arms join the central disk. I suppose the spear must break down the nervous ganglions supplying motive power, as the stabbed arms lose at once strength and tenacity; the suckers, that a moment before held on with a force ten men could not have overcome, relax, and the entire ray hangs like a dead snake, a limp, lifeless mass. And thus the Indian stabs and stabs, until the octopus, deprived of all power to do harm, is dragged into the canoe, a great, inert, quivering lump of brown-looking jelly."

In the way above described the Indian avoids coming to close quarters with the octopus.

The consequences of coming in contact with what cannot have been a very large specimen have been narrated by an American lady:—

"While examining a reef on the coast of Brazil her eyes fell on an object which roused her curiosity. She could see nothing but a pair of very bright eyes, but concluding that these must have an owner she determined to secure him. Putting her hand down quietly so as not to ruffle the water, to her surprise it was suddenly seized with a pressure far too ardent to be agreeable! She tugged hard to get away; but the creature had as strong a hold on the rocks as it had on her hand, and was not easily to be persuaded to let go of either. At last, however, it became convinced that it must make its choice, and so let go its hold on the rocks, when the lady found a large octopus clinging to her right hand! His long arms were wound around her hand, and attached to it by the rows of suckers, so that escape from them was almost impossible. Trying to disengage herself only led to the rascal disengaging one of his numerous limbs, which he then proceeded to wind around her left arm, thus making her a helpless prisoner. The more she struggled the tighter did he clasp her. In vain she

shouted to her companion, who had wandered out of hearing. Momentarily she expected to be bitten, when suddenly the creature thought better of it, and relinquishing her hand dropped on the sand. Then raising himself on his long, slimy arms, he stalked away towards the water, cutting such a comical figure as made the frightened lady laugh. 'He looked,' she says, 'like a huge and very tipsy spider, staggering away on his exceedingly long legs.'"

An encounter somewhat more alarming was that which Mr. Beale had with an octopus when collecting shells among the rocks of the Bonin Islands, and of which Mr. Gosse gives the following account:—

"He was much astonished at seeing at his feet a most extraordinary-looking animal crawling towards the surf, which it had only just left. It was creeping on its eight legs, which, from their soft and flexible nature, bent considerably under the weight of its body, so that it was lifted up by the efforts of its tentacula only a small distance from the rocks. It appeared much alarmed at seeing him, and made every effort to escape.

"Mr. Beale endeavoured to stop it by pressing on one of its legs with his foot; but although he used considerable force for that purpose, its strength was so great that it several times liberated its member, in

spite of all the efforts he could employ on the wet and slippery rocks. He then laid hold of one of the tentacles with his hand, and held it firmly, so that it appeared as if the limb would be torn asunder by the united efforts of himself and the creature. He then gave it a powerful jerk, wishing to disentangle it from the rocks to which it clung so forcibly by its suckers.

"This effort it effectually resisted; but the moment after, the apparently enraged animal lifted its head, with its large projecting eyes, and, loosing its hold of the rocks, suddenly sprang upon Mr. Beale's arm (which he had previously bared to the shoulder for the purpose of thrusting it into holes in the rocks after shells), and clung to it by means of its suckers with great power, endeavouring to get its beak, which could now be seen between the roots of its arms, in a position to bite.

"A sensation of horror pervaded his whole frame when he found that this monstrous animal had fixed itself so firmly on his arm. He describes its cold, slimy grasp as extremely sickening; and he loudly called to the captain, who was engaged at some distance, to come and release him of his disgusting assailant. The captain quickly came, and taking him down to the boat, during which time Mr. Beale was em-

ployed in keeping the beak of the octopus away from his hand, soon released him by destroying his tormentor with the boat-knife, when he disengaged it by portions at a time.

"This cephalopod measured across its expanded arms about four feet, while its body was not bigger than a man's fist."

The octopus found on the British coasts is comparatively small, the largest known to Mr. Lee having had arms two feet six inches in length. Such a creature would prove dangerous to bathers, as the following incident which happened lately will show:—

A retriever dog was disporting himself in the sea at Scarborough, when he was chased out of the water by a large octopus. While endeavouring to make its way back to deeper water the monster was captured. On being taken up some steps by a fisherman, the creature embraced him by his leg, and actually pulled him down, so it may fairly be presumed that it would have fared ill with the dog had the octopus succeeded in seizing it. The monster was found to be four feet in length, two feet in circumference, and weighed forty-two pounds. Fortunately the octopus can be made to relax its hold by grasping it tightly round the throat.

If these home-forms are formidable, still more so are the much larger devil-fish that occur in the Mediterranean and other seas, and Italian divers and bathers have a wholesome dread of them. An English shell-collector at Leghorn states that in crevices of the sea-wall forming the harbour of that town there lie concealed great octopods having arms four feet in length, and each at their base as thick as a man's wrist. In collecting shells he had to pass over the masonry beneath which one of those creatures lurked, and he states that, although no coward, he was for some time afraid to pass the spot, the octopus usually thrusting out one or two of its formidable arms in its endeavour to catch hold of him.

It is to bathers and divers, however, that the octopus forms a source of real danger, and numerous instances are on record of lives lost in this way. Sir Grenville Temple tells of a Sardinian captain, who, when bathing at Jerbet, felt one of his feet grasped by the arm of an octopus. On trying to disengage himself by his other foot, that, too, was seized by another of the monster's arms. He then endeavoured to free himself with his hands, but they also were grasped and rendered powerless. Thus helpless, the poor captain was drowned, his body being afterwards found in the deadly embrace of his many-armed enemy.

These creatures abound off the coast of Algeria, where their capture forms a regular fishery. They are taken in deep water by means of earthen jars strung together and lowered to the bottom of the sea, where they are allowed to remain for a certain number of hours, and into which the animals introduce themselves. Frequently from eight to ten are taken from every jar at each visit of the fishermen. In less deep water earthenware drain-pipes are placed side by side for distances frequently exceeding half a mile in length, and into these also the octopods enter, and are taken by the fishermen. As they are attracted by white, and by all smooth and bright substances, the natives deck places in the creeks and hollows in the rock with white stones and shells, over which the poulpes spread themselves, and are caught from four to eight at a time.

Although thus a source of profit to the fishermen, they are no less a source of danger to bathers on the coast, as the following incident, related by the author of "The French in Algiers," shows.

"The soldiers," he says, "were in the habit of bathing in the sea every evening; and from time to time several of them disappeared, no one knew how. Bathing was, in consequence, strictly forbidden; in spite of which several men went into the water one

evening. Suddenly one of them screamed for help, and when several others rushed to his assistance, they found that an octopus had seized him by the leg with four of its arms, whilst it clung to the rock with the rest. The soldiers brought the monster home with them, and out of revenge they boiled it alive and ate it. This adventure fully accounted for the disappearance of the other soldiers."

It is well known that a gigantic species of devil-fish lives in the waters of the Pacific coasts with arms at least five feet in length. The *Weekly Oregonian* of September 1877 records the fact that an Indian woman, while bathing, was pulled beneath the surface of the water by an octopus and drowned. The body was discovered the following day on the bottom of the bay in the embrace of the monster. Indians dived down, and with their knives severed the tentacles of the octopus and rescued the body. This was said to have been the first known instance of death from this cause in the locality; but there had been several narrow escapes.

A very narrow escape was that made by a diver at work on the wreck of a sunken steamer off the coast of Florida. The man—a powerful Irishman—was quite paralyzed in its grasp. He felt, as he himself expressed it, both his armour and himself

being cracked into a jelly. He was just being brought to the surface, or otherwise the creature would have killed him, for he was suffering so severely from the terrible embrace that he had lost all power of motion. When dragged into the raft from which he had descended, and finally released, he fainted away. The men on the raft seized the animal by one of its arms and tried to pull it off; but they were unable to overcome the adhesive power of a single sucker. They at length succeeded in removing the monster by dealing it a heavy blow across its baggy body. The latter was described as standing stiffly up above the eyes, which gleamed like fire.

In certain of the South Sea Islands the natives are in the habit of diving for octopods; but they are usually accompanied by some one, in case of assistance being required. A missionary among the Harvey islanders tells how a servant of his on one occasion went diving for those animals, leaving his son in charge of the canoe. On rising shortly after to the surface, his arms were free, but his mouth and nostrils were completely covered by a large octopus. Had his son not torn the living plaster from his face, he would no doubt have been suffocated—a fate which is said to have befallen another native who, some years before, went diving alone.

The following thrilling adventure with an octopus is the most recent one of the kind known to us:—

On November 4th, 1879, a Government diver was at work at the bottom of the tideway of the river Moyne, Melbourne. Having placed a charge of dynamite between two large stones, he came up and exploded it; and on descending again, found one of the large stones thrown out, which he sent up, and then hooked on the other, but could not start it. Having descended again, the current being pretty strong at the time, he stretched himself out on the stone, and reached his right arm down to feel if he could get another small charge under it, not being able to do this in any other position. "My arm," he says, "was scarcely down, however, before I found it was held by something; and the action of the water was stirring up the loose clay, and therefore I could not see distinctly for a few minutes. But when it did clear away, I saw to my horror the arm of a large octopus entwined round mine like a boa-constrictor; and just then he fixed some of his suckers on the back of my hand, and the pain was intense. I felt as if my hand were being pulled to pieces, and the more I tried to take it away the greater the pain became; and from past experience I knew this method would be useless. But what was I to do

lying in this position? I had the greatest difficulty in keeping my feet down, as the air rushed along the interior of my dress and inflated it; and if my feet had got uppermost, I should have become insensible, held in such a position; and if I had given the signal to be pulled up, the brute would have held on, and the chances would have been that I should have had a broken arm. I had a hammer down by me, but could not reach it to use it on the brute. There was a small iron bar not far from me, and with my feet I dragged this along until I could reach it with my left hand. And now the fight commenced. The more I struck him the tighter he squeezed, until my arm got quite benumbed; but after a while I found the grip began to relax a little. But he held on until I had almost cut him to pieces; and then he relaxed his hold from the rock, and I pulled him up.

"I can assure you I was completely exhausted, having been in that position for over twenty minutes. I brought the animal up, or rather a part of him. We laid him out, and he measured eight feet across; and I feel perfectly convinced this fellow could have held down five or six men. It is only when a person gets a grip from these brutes that one realizes their strength; and it was

lucky for me that I was not an amateur, for I can assure you that I had the greatest struggle to get clear of it that I ever had with any animal under water."

Hideous and dangerous as the large octopods have thus been proved to be, they give no ground for believing in the existence of a devil-fish big enough to take a three-masted vessel in its embrace. Such was the "colossal poulpe" of De Montfort, the story of which was told him by an old sea-captain who had settled at Dunkirk.

Once when sailing off the coast of Africa, Captain Davis's ship was becalmed for several days, and the opportunity was taken to have its sides scraped and cleaned, the sailors doing the work standing on planks suspended along the ship's side. They were thus engaged, when one of those monsters threw an arm around the bodies of two of the men and drew them into the sea. It then threw a second arm around another of the crew, who was in the act of climbing the mast; but, happily, getting entangled among the ropes of the rigging, it failed to carry off its third victim, who meanwhile uttered the most piteous groans. The crew, coming to his assistance, cut off the limb that held him; but he was so injured that he died soon after. Attacked by five

harpoons, the octopus endeavoured to regain the ocean depths with its two victims. This it succeeded in doing after breaking the lines attached to the harpoons buried in its body. The portion of the arm which it left behind measured twenty-five feet long, says De Montfort, was as thick as the mizzen-yard at its base, and had suckers as large as pot-ladles.

Whatever truth there may be in the captain's story, and it is by no means improbable, the dimensions of the creature have been grossly exaggerated by De Montfort. That the octopus was not the original of the legendary kraken may almost be regarded as certain; for it is too small,—it is never known to have exceeded nine feet in length,—and it does not bask on the surface of the sea as the kraken is said to have done. The octopus, however, is probably the counterpart in nature of the Lernæan hydra of Grecian mythology. This mythical creature was represented as having a huge body and nine heads—eight mortal, and the ninth immortal. This was the monster which Hercules set himself to destroy. He tried cutting off its heads; but this he found was worse than useless, for two heads sprang up for every one destroyed. Iolaus, however, who drove his chariot, succeeded in stopping this multiplication by burning with torches the germs of the

growing heads; and finally Hercules succeeded in his labour of killing the hydra.

The octopus is a familiar object to the modern Greeks, and from the representations of it that have been found on coins and other remains, it seems to have been familiar to the ancient people who believed in the legend of the hydra. Mycenæ is only a few miles from Lerna, the scene of this famous labour of Hercules, and there Schliemann found a gold ornament with a figure of an octopus upon it, while another ornament of gold took the form of this hideous creature.

The mythical hydra and the real octopus have sufficient in common to show that the one has given rise to the other. The hydra had eight mortal heads: the octopus has eight arms. The hydra occasionally left its home in the marshes of Lerna, and made a raid on the cattle in the open country: the octopus has also the power of leaving the water. "I have seen an octopus," says Mr. Henry Lee, "travel over the floor of a room at a very fair rate of speed, toppling and sprawling along in its own ungainly fashion." The ancient Greeks knew of this habit of the octopus, for Aristotle says they occasionally leave the water and walk in stony places. Trebius, another Greek, tells of an octopus at Carteia that left

the sea every evening to devour salt provisions. Its continued thefts irritated the fishermen, who, to put an end to them, surrounded their curing-yards with elevated fences. It was all in vain, however, for with the help of a tree the monster clambered over them. The hydra, according to the legend, is said to have twisted itself round the feet of Hercules; and this is the mode by which the poulpe seeks to overpower its prey. Further, when its heads were cut off they grew again: this is likewise the case with the arms of the octopus. These are peculiarly liable to be bitten off by the toothed whales, the conger eel, and other enemies which feed upon them. When thus mutilated, however, the arms grow again; and there is hardly one of those creatures which has not at least one or two of those reproductions, and specimens have been seen in which all the arms had been lost, but were then more or less restored. This fact was likewise known to the ancients, who also believed that when pressed by hunger they fed on their own limbs, which on the return of better times grew again.

CHAPTER IX.

THE CALAMARY OR SQUID.

THE third kind of head-footed mollusc is represented by the calamary or squid. Like the cuttle-fish, it has ten arms, two of them much longer than the others; its body, however, is proportionately much longer and narrower than in the other forms. Further, its sides have got fin-like expansions, by means of which it can progress through the water, although it makes swiftest progress by the expulsion of water from its funnel. It has not got "a bone" like the cuttle, but it has a delicate horny shell lying inside its body, which, from its general resemblance to a quill, has been called the "pen." Like the others, it has got an ink-bag; and on this account the fishermen in the south of England call them "pen-and-ink" fish. These "pens," according to Owen, multiply with age, so that in an old squid quite a number may be found lying closely packed one behind the other.

Although not much is seen of these creatures on the coast, they are nevertheless very numerous in the open sea, where they move about in vast shoals. On the 10th January 1858 a Dutch ship sailed for two hours through dead squids which covered the surface of the sea as far as the eye of the look-out could reach. They are the choice food of the spermaceti and other toothed whales, and Mr. Vrolik found no fewer than ten thousand beaks of the squid in the stomach of a single whale which he examined. Captain Francis Post says that whales in the agony of death frequently eject from their stomach large quantities of squid.

The calamaries are excellent leapers. One of them has earned from the sailors the name of sea-arrow, or flying squid, from its habit of leaping out of the water. They have thus been known to leap in calm weather to such a height as to fall on the decks of vessels.

Gould thus describes their movements:—"Their usual mode of swimming is by dilating the water-breathing chamber of their sac-shaped body and filling it with water. The body is then suddenly contracted and the water forcibly ejected, so as to propel them backwards with great rapidity. So swift and straight is their progress that they look like arrows shooting

through the water. Whenever they strike the shore they commence pumping the water with increased violence, while every effort only tends to throw them still farther upon the sands until they are left high and dry.

"They devour immense numbers of small fish, and it is amusing to watch their movements, and see how at a distance of several feet they will poise themselves, and in an instant, with the rapidity of lightning, their prey is seized in their long arms and instantaneously devoured."

Professor Verrill tells how he watched the squids capturing and devouring young mackerel in the wharves of Provincetown, Massachusetts. In attacking the mackerel, which were swimming about in shoals, they would suddenly dart backward among the fish with the velocity of an arrow, and then as suddenly turn to the right or the left and seize a fish, which was almost instantly killed by a bite in the back of the neck with their sharp beaks. The bite was always made in the same place, cutting out a triangular piece of flesh, and was deep enough to penetrate to the spinal cord. The attacks were not always successful, and were sometimes repeated a dozen times before one of these active and wary fishes could be caught. Sometimes, after making several

unsuccessful attempts, one of the squids would suddenly drop to the bottom and there change its colour to that of the sand, on which it rested so perfectly as to be almost invisible. In this way it would wait until the fishes came back, and when they were swimming close to or over the ambuscade, the squid, by a sudden dart, would be pretty sure to secure a fish. Ordinarily when swimming they were thickly spotted with red and brown, but when darting among the mackerel they appeared translucent and pale. The mackerel, however, seem to have learned that the shallow water is the safest for them, and would hug the shore as closely as possible, so that in pursuing them many of the squids became stranded and perished by hundreds. When thus stranded, they usually discharge their ink in large quantities.

Nowhere do squids occur in greater abundance than off Newfoundland, where they are used most extensively as bait, nearly half of all the cod taken on the "Banks" being fished with them. They appear in vast shoals off the Newfoundland coast in August and September, when a whole fleet of boats engage in their capture. During violent gales of wind at that season hundreds of tons of them are cast up on the shore, where their decayed bodies pollute the atmosphere.

The method of capturing the squid is known as jigging—a jigger being a number of hooks radiating from a fixed centre. No bait is used. The jigger is simply allowed to sink to the bottom, where it is constantly kept moving up and down till the squid is felt upon it. The animal merely clasps his arms around this hooked instrument, when doubtless the pain from the sharp pins induces him to retreat instantly. The fisherman, however, who is constantly jerking his jigger up and down, pulls in as rapidly as possible, entangling the creature's arms among the pins, and drawing him through the water so fast that escape is impossible. The moment he emerges from the water he contracts his body and discharges through his funnel a jet of salt water. Again the body is contracted, and this time the squid ejects from the same aperture a stream of black inky fluid. Not unfrequently the luckless fisherman has not the squid unhooked before this discharge takes place, and may then receive the inky stream full in the face.

The scene when the squids are abundant is described as really exciting, the streams rising here and there in twenty directions pointing out the rapidity of the catch. The number of these animals used by a single fishing-vessel in two months is enormous. Captain Osborne states that his vessel used in the course of

six weeks eighty thousand squids as bait in the cod fishery.

According to Professor Verrill, squids in Newfoundland are often found stranded in the morning on the beach in immense numbers, especially when there is full moon, and it is thought by many of the fishermen that this is because they have the habit of turning towards and gazing at a bright light, and since they swim backwards they get ashore opposite the position of the moon. This habit, he states, is also sometimes taken advantage of by the fishermen who capture them for bait. They go out on dark nights with torches in their boats, and by advancing slowly towards a beach drive them ashore. The Japanese have an extensive squid fishery, and they make use of lights in order to attract the fish to the surface, when they "jig" them.

The South Sea Islanders have a still more curious contrivance for capturing cuttle-fish. It consists of a thin piece of wood, a foot in length, and round and polished. Near one end of it a number of beautiful bits of cowrie-shell are fastened, one over the other like the scales of a fish, until it is about the size of a turkey's egg. This is suspended horizontally by a strong line and let down to the bottom over the side of the canoe. The fisherman jerks the line, and the

shells move as if they were alive. The cuttle-fish, attracted by the bright cowries, darts out its arms one after another upon it, until these get quite entangled in the openings between the different pieces of shell. Then the fisherman quickly pulls the whole apparatus up into the canoe, and the cuttle-fish is secured.

CHAPTER X.

GIANT CUTTLE-FISHES.

THERE are altogether about seventy kinds of squids known, and these include forms so minute as not to measure when full grown more than two inches, and others so large as to be classed among the giants of creation. It is only during the last few years that the existence of giant cuttle-fishes has been put beyond all doubt by their capture and preservation.

There are preserved in one of the London museums portions of a cuttle-fish which Professor Owen estimates must have had a total length of about seven feet. It was picked up floating dead in 1769 by the naturalists on board a vessel in which the afterwards famous Captain Cook was lieutenant, and was being fed upon by sea-birds. Part of it they preserved in spirits, and part of it they ate, for they state that it made one of the best soups they ever tasted. Instead of suckers, its arms were furnished with two rows of sharp talons like those of a cat.

The French voyager and naturalist Peron saw at sea in 1801 a huge calamary, its body the size of a barrel, rolling with noise on the waves. Its arms were about seven feet long and about as many inches in diameter at the base. These were extended on the surface, and writhed about like great snakes.

In 1854 a large specimen was stranded on the Danish coast. The fishermen cut it to pieces to bait their lines, and the body was said to have furnished them with several barrow-loads, the beak of the animal being nine inches long.

A few years later the mutilated carcass of another huge calamary was stranded on the coast of Shetland. Its body measured seven feet in length, each of its ordinary arms eight feet, and its two long tentacles no less than sixteen feet each.

Within a year after the finding of this carcass on the Scottish coast the crew of a French corvette had the good fortune to encounter a live example of one of those head-footed giants. It was on the 30th November 1861 that the French steamer *Alecton*, commanded by Lieutenant Bouyer, encountered between Madeira and Teneriffe an enormous calamary, which was swimming on the surface of the water. The animal measured from sixteen to eighteen feet in length, without taking into account the formidable

arms covered with cups which surrounded its head. Its colour was brick red, its eyes enormously big and frightfully fixed. Its mouth—like the beak of a parrot—could be opened to the extent of eighteen inches. Its long body presented an enormous mass, the weight of which was estimated at four thousand four hundred pounds. Its fins, placed at the hind end, were rounded in two fleshy lobes, and of very large size.

The commander of the vessel, upon perceiving it, halted upon his course and made preparations for capturing the monster. Guns were charged and harpoons hastily prepared, but at the first discharge of the former the animal dived under the ship and immediately appeared on the other side. Attacked again with harpoons, it disappeared two or three times, and each time that it rose to the surface its long arms writhed. The ship's course was directed according to the movements of the animal. The chase lasted more than three hours. The commander of the *Alecton* was determined to capture this new enemy; nevertheless he did not venture to lower a boat, for a single arm of this cuttle-fish might have overturned it. The harpoons thrown at it penetrated the flabby flesh and came out without success. Several balls also traversed it unsuccessfully. Nevertheless it received one which

seemed to wound it badly, causing it to vomit a great deal of frothy matter and blood, which spread a strong odour of musk. It was then that they succeeded in lassoing the animal, but the rope slipped along the elastic body until it was arrested by the fins. Attempting to haul their prize on board, they had already raised a great part of the animal from the water, when its enormous weight caused the rope to penetrate the flesh and so to separate the hinder portion of the body, which was drawn on board, while the remainder disappeared beneath the waters. The part taken on board was not preserved, so that nothing remains of this monster but the story of its encounter as told by the officers of the vessel.

Much more satisfactory in this respect is the evidence now to be adduced. It comes from Newfoundland, where, as already stated, squids of small dimensions are so common as to form a regular fishery.

In 1873, three fishermen, when plying their vocation off the Newfoundland coast, saw a shapeless mass floating on the water near them, and thinking it might prove part of the cargo of a shipwrecked vessel, they rowed up to and struck it with their boat-hook. In an instant, says the Rev. Mr. Harvey, to whom science is indebted for the story, the dark mass

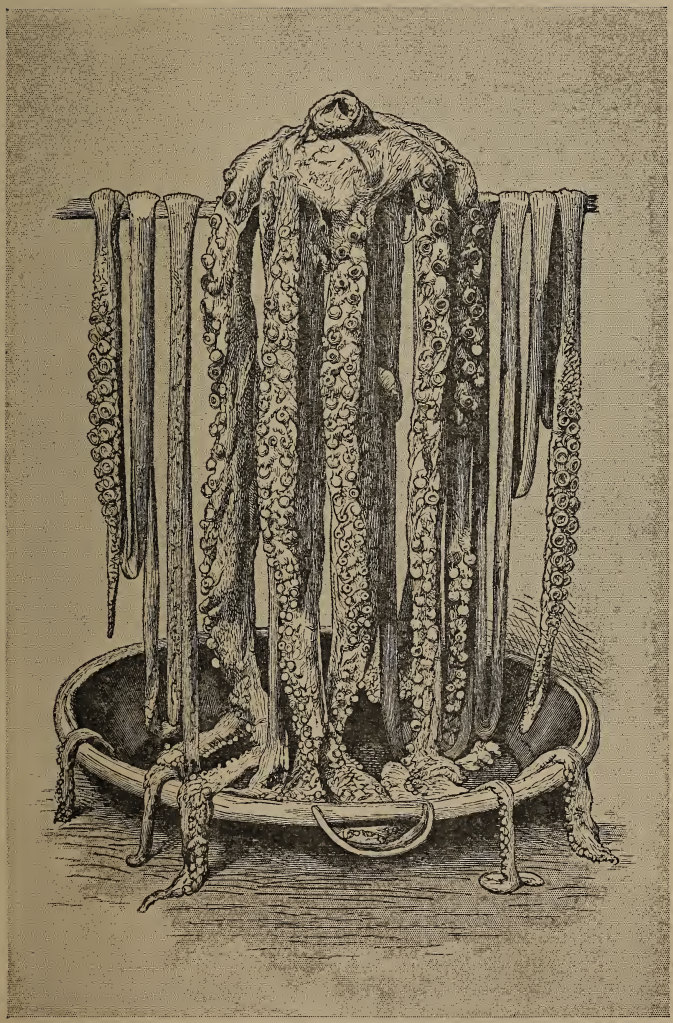
became animated, and opening out like a large umbrella displayed to view a pair of ghastly green eyes of enormous size, which glared at them with apparent ferocity, its huge parrot-like beak opening in a savage and threatening manner. Before the men had sufficiently recovered their presence of mind to think of endeavouring to escape, the creature shot out several of its long fleshy arms towards their boat, and two of these had already laid firm hold of it, when one of the fishermen seizing a hatchet succeeded in lopping them off.

Finding itself wounded, the monster withdrew, blackening the water as it went by the emission of its inky fluid, while the fishermen made for the harbour with the two trophies of their encounter. One of these was destroyed before Mr. Harvey reached the scene; the other measured nineteen feet in length, —six feet of it, however, had been previously cut off, while the fishermen calculated that about ten feet more had been left on the monster. The entire tentacle must, therefore, have measured from thirty to forty feet in length; and if twenty feet be added for the body, we have this gigantic mollusc rivalling in length an ordinary whale. It was one of the two long arms that was secured, and this was found to be studded over with no fewer than one hundred and

eighty cup-like suckers, some of them an inch and a quarter in diameter.

News reached this country about the same time that a great cuttle-fish had seized a fishing-boat off the coast of Japan. By repeated blows the fisherman succeeded in killing the monster. It was taken ashore and exhibited, its body measuring sixteen feet and its arms five feet in length. In their drawings, ivory carvings, etc., the Japanese show that they have long been practically acquainted with giant cuttle-fishes. Thus in a Japanese show described by Mr. Laurence Oliphant there was, he says, on exhibition a series of groups of figures carved in wood the size of life, and as cleverly coloured as Madame Tussaud's wax-works. One of these was a group of women bathing in the sea. One of them had been caught in the folds of a cuttle-fish; the others in alarm were escaping, leaving their companion to her fate. The cuttle-fish was represented on a huge scale, its eyes, eyelids, and mouth being made to move simultaneously by a man inside the head. Both in drawings and in ivory carvings the Japanese have depicted encounters between these monsters and boatmen.

To return to Newfoundland. Soon after the encounter already described, a second gigantic cuttle-fish, not much inferior in size to the first, was caught by



HEAD, ARMS, AND TENTACLES OF GIGANTIC CALAMARY, FROM LOGIE BAY, NEWFOUNDLAND.

three fishermen in Logie Bay. Its arms had got entangled in the meshes of the herring-nets ; and although thus comparatively helpless, it was only after a severe struggle, and when they had severed the monster's head from its body, that they succeeded in landing their "sea-devil," as the Americans call those creatures. Its body was found to be eight feet in length and five feet in girth, while its longest arms measured twenty-four feet. Its parrot-like beak was as big as a man's fist, and the socket of its fishy eyes had a diameter of four inches.

In further describing this specimen, Mr. Harvey says there are about eighty suckers on each long arm, which tapers to a very fine point. Each of the eight short arms is six feet in length, and at the point of junction with the head is nine inches in circumference. They taper to a point, and on the under side are entirely covered with a double row of powerful suckers one inch and a quarter in diameter, each having a sharp denticulated edge, and a membrane in the centre which the creature can retract at pleasure, and thus create a vacuum.

The entire specimen was taken to St. John's, Newfoundland, where it was photographed, and the huge carcass preserved.

Mr. Harvey has obtained evidence of other gigantic

cuttles that had been observed previously to those just described, and especially of one stranded in 1872, which in total length measured no less than eighty feet. A specimen was also taken alive in the shallow water of Coombe's Cove, Fortune Bay, in the same year. Its body measured ten feet in length, while the length of one of its ordinary arms was six feet, and of each of its tentacles forty-two feet.

In 1877 a huge squid was cast ashore alive in Catalina Bay, and was afterwards conveyed in brine to the New York Aquarium. It is the largest and best specimen yet preserved, its body measuring nine and a half feet in length and seven feet in circumference, while its pair of long arms measured thirty feet each. The upper part of its beak was half a foot in length, while the socket of its eyes measured no less than eight inches across.

During the same year another fine specimen came ashore in Trinity Bay. It had been borne in by a spring-tide, and when first seen was struggling desperately to escape from the shallow water. "In its struggles," says the writer of the account, "it ploughed up a trench or furrow about thirty feet long, and of considerable depth, by means of the stream of water that it ejected with great force from its siphon."

A year later, another monster devil-fish was encoun-

tered by Newfoundland fishermen not far from the shore. It had, like the preceding one, got into shallow water, and was making desperate efforts to escape, churning the water into foam by the motion of its arms and body, and in its excitement discolouring the surrounding sea by the emission of its inky secretion. Finding it thus partially disabled, the seamen approached sufficiently near to throw upon it the grapnel of their boat, the barbed flukes of which sank into its molluscous body. Proceeding to the shore with the rope attached to the grapnel, they fixed it to a tree, and thus moored the briny monster to the shore. "His struggles," says Mr. Harvey, "were terrific, as he flung his ten arms about in dying agony." This specimen, which appears to have been the largest yet seen, measuring about fifty-five feet from tip of arm to extremity of body, was not preserved, the fishermen cutting it up for dogs' meat.

Another specimen, nearly thirty-eight feet in length, was caught in December 1879; while the latest recorded capture was made in November 1881. It measured only twenty-eight feet, and was taken in Portugal Bay, from which it was conveyed to New York, encased in ice.

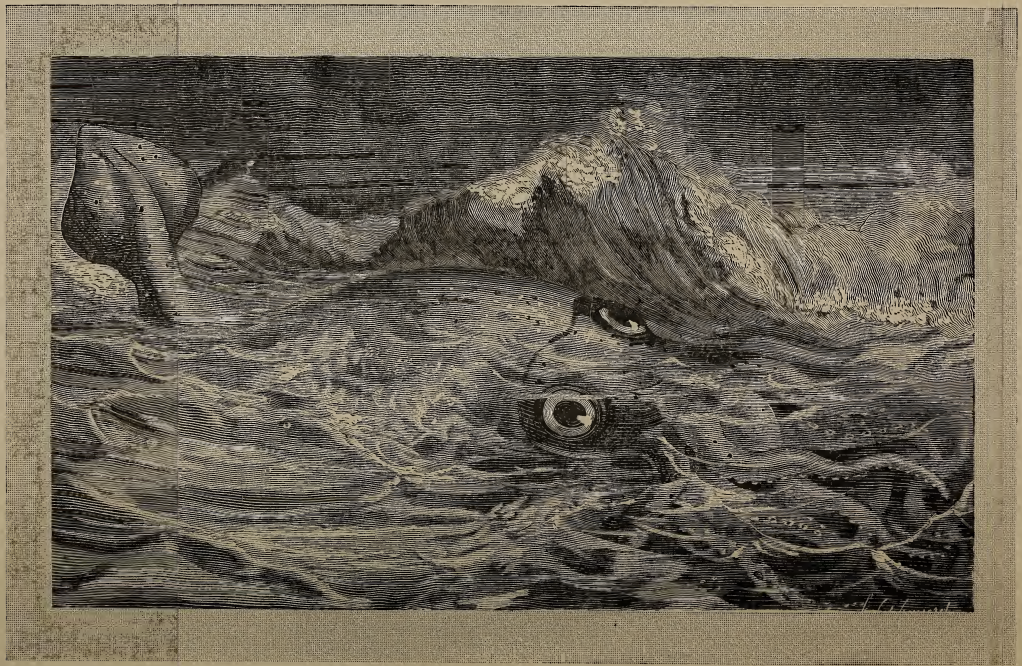
The specimen found stranded on the coast of Shetland remained the largest recorded British cuttle-fish

until 1875, when a much bigger one was captured off the coast of Connemara in Ireland. The following is the account given of the capture in the *Zoologist*:—

"Having shot their long lines in the morning, the fishermen observed to seaward a great floating mass surrounded by gulls. They pulled out, believing it to be a wreck, but to their great astonishment found it to be a cuttle-fish of enormous proportions, and lying perfectly still, as if basking on the surface of the water.

"A knife was the only weapon on board. The cuttle is much prized as a bait for coarse fish, and the crew resolved to secure at least a portion of it. Considering the great size of the monster, and knowing the crushing and holding powers of the arms, open hostility could not be resorted to, and the fishermen shaped their tactics differently.

"Paddling up with caution, a single arm was suddenly seized and lopped off. The cuttle, hitherto at rest, became dangerously active now, and set out to sea at full speed in a cloud of spray, rushing through the water at a tremendous rate. The canoe immediately gave chase, and was up again with the enemy after three quarters of a mile. Hanging on the rear of the fish, a single arm was attacked in turn, while it took all the skill of the men to keep out of the deadly clutch of the suckers. The battle thus con-



GIANT CALAMARY AFLOAT.

tinued for two hours, and while direct conflict was avoided, the animal was gradually being deprived of its offensive weapons. Five miles out on the open Atlantic, in their frail canvas craft, the boatmen still slashed away, holding on boldly by the stranger, and steadily cutting down its powers. By this time the prize was partially subdued, and the canoe closed in fairly with the monster. Such as remained of the ten great arms slashed around through the air and water in most dangerous but unavailing fashion. The trunk of the fish lay alongside, fully as long as the canoe; while in its extremity the mutilated animal emitted successive jets of fluid, which darkened the sea for fathoms around. The head at last was severed from the body, which was unmanageable from its great weight, and sank like lead to the bottom of the sea.

"Of the portions of the mollusc taken ashore, two of the great arms are intact, and measure eight feet each in length, and fifteen inches round the base. The two tentacles attain a length of thirty feet. The mandibles are about four inches across. The head, devoid of all appendages, weighed about six stones, and the eyes were about fifteen inches in diameter."

It is evident from the supine condition of this monster that it was very sick or in a dying condition

when attacked, otherwise it would have escaped capture readily by diving. Certain exaggerations in the above account are due probably to the ignorance rather than the invention of the captors.

Big though these calamaries are, they fall far short of the kraken in this respect. There can be little doubt, however, that on these giant squids as a foundation of fact the old Norsemen built up that legendary monster which, according to Pontoppidan, was so large that a whole regiment of soldiers was reported to have been able to manœuvre on its back.

THE END.

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